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ADVANCED MANAGEMENT

JULY 1954 VOLUME XIX NO. 7

In This Issue . . .

Safety: Success Factor For The Future
Emile F. du Pont

Plan Today For Tomorrow's Competition
Charles A. Jurgensen

Destruction of the Merit Increase
William E. McCauley

Semantics: Foundation of Business Communications
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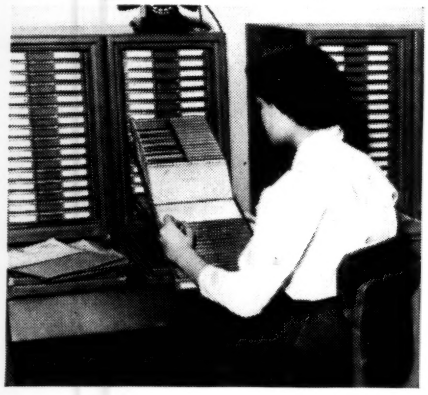

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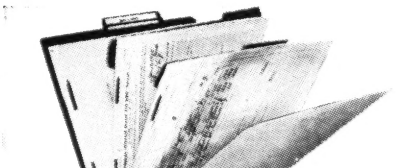

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ADVANCED MANAGEMENT

JULY 1954
VOLUME 19 NO. 7

Publisher: C. A. Slocum

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Editor: Will Long

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Assistant Editor: Beatrice Jones

ADVANCED MANAGEMENT, pubilshed monthly by the Society for the Advancement of Management, Inc., 74 Fifth Avenue, New York 11, N. Y., is merged with MODERN MANAGEMENT, and is successor to The Society for the Advancement of Management Journal, the Bulletin of the Taylor Society and of The Society of Industrial Engineers. Re-entered as second-class matter, December 23, 1949, at the Post Office at New York, N. Y., under the Act of March 3, 1879. Copyright, 1954 Society for Advancement of Management. Subscription rate: $8.00 per year. Single copies: 75 cents (members); $1.00 (non-members). An index to ADVANCED MANAGEMENT is published annually, and the contents are also indexed in Industrial Arts Index which is available at Public Libraries. Notification of address changes must be given at least four weeks in advance.

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Executive Development

EVERY organization like SAM must have objectives. I believe that we in SAM have established such goals and positively recognize our place and responsibility in the business community. There is little question that every SAM Chapter justifies its existence, by the work it does to develop more management ability in its members. Management and executive development is the basic purpose for chapter meetings, round tables and seminar discussions.

Companies across our country have recognized the need for more training within their ranks. The progressive companies have well-established training programs and still are sending promising men to management programs at many leading universities with well-established management programs. Our three SAM conferences in New York, plus the many given by our Chapters, are well attended. But with all these training programs, business organizations want and are demanding even more training—and preferably in their home cities. When travelling time and costs can be eliminated, and where Chapters do present a planned continuous program for a year, the demand for SAM as a training vehicle is beyond imagination.

Our Chapters which meet this need and demand, and have it known by the progressive companies of their area, have few problems. Those Chapters are working out their year's program now, determining the requirements of their members and planning to meet the objective. The objective is clear and definite—development of executive and management ability and skills.

More planning is going into our Chapter programs, which means that more thought is being given to the organization of Chapters. Younger men are being encouraged to participate in the work of running a Chapter. Many Chapters have a program of officer succession that is positive, and I believe that the Chapters are stronger that have done this kind of planning—they are moving ahead with strength. Their training programs reflect good leadership.

For Chapters which have yet to develop their program for next year, the National Office is in a position to assist when requested. Your National Vice-President of Chapter Operations and other National Officers are always available to assist you. Functional Vice-Presidents of Industrial Engineering, Materials Handling, Human Relations and Economics will have many ideas for Chapter programs and conferences.

Our regional organization and regional Vice-Presidents are doing much to coordinate Chapter programs in a region and to encourage an exchange of ideas. Possibly we should consider that this regional development in SAM is doing more than any other factor to help Chapters meet their objective of training men in management.

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Our achievement next year and the next will be exceptional Chapter programs for executive development.

BRUCE PAYNE

EMILE F. DU PONT has been director of the Du Pont Company's Employee Relations Department since 1951. He directs activities relating to personnel, training, industrial relations, medical care, and safety and fire protection. After working in many capacities in the various Du Pont plants, Mr. Du Pont returned to Wilmington in 1945 and the company's Service Department. The Du Pont companies contain many SAM members

Safety Is A Success Factor In Management's Future

by Emile F. du Pont, Director
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E. I. du Pont de Nemours & Company

Many management men feel employee absenteeism due to accidents is an unavoidable production percentage loss. This author is an authority on the subject. Far from being unavoidable, he tells how safety measures can boost production, insure management's strength, and promote the highest type of employee-management relations

THE FACT that safety is not debatable may lead to superficial thinking on the subject. I expect there are many people who consider the safety question in a rather detached or abstract way; something that is good and that is humanitarian but remote from themselves. Such persons can read of mounting traffic accidents with a feeling of horror but as something that could not happen to them. There may be people who think of industrial accidents in terms of injury compensation and time lost from work.

There is much more to the problem of safety. Safety is a defensive weapon against Communism.

The United States, whether for better or for worse, has achieved a position of world leadership. There are forces at work which seek to wrest this position from us. Never before in history has American Management faced such a need to be strong.

The threat to our freedom and our way of life is two-fold. We could be destroyed by war. We could be so weakened by economic collapse that we would be vulnerable to our enemies, and our people would turn in despair to some foreign ideology. Of the two threats, the second presents the greater danger, for our government is spending vast sums to be prepared for war and to discourage any would-be aggressor from starting one. The second threat, the more subtle, could overtake us before we become aware of the true situation.

Our experience in World War II proved conclusively that American production efficiency was a vital factor in the allied victory. Standing alone, with no other supporting evidence, this should point conclusively to the absolute necessity for us to be as efficient as we can in our internal economy, and to prevent waste wherever possible.

Production is just as essential for prosperity as it is for defense. We cannot borrow and spend our way to a higher standard of living. All we have is what we produce. If we are to prevent an internal collapse we must continue to produce more and more, with less human effort and at less cost.

Enlightened industrial management has learned beyond a doubt that effiency and safety performance go hand in hand. Accidents are wasteful, both in human resources and in production. If we are to measure up to our present world responsibilities we must take the proper steps now, and every day, to insure against waste in any segment of our economy.

Now, let's examine industrial managements' record. The organized safety movement started in 1913 when the National Council for Industrial Safety was formed. The name was changed a year later to National Safety Council. It had a secretary, a stenographer, and a budget of fourteen hundred dollars.

Since then, the National Safety Council and important constituent groups have tackled the problem of accident prevention from almost every conceivable angle. Major contributions to promote safety have been made by workers, employers, civic organizations, the press and radio, city councils, state legislatures, and the Congress.

Management has seen encouraging progress. The statisticians estimate that if accidental deaths had continued at the 1913 rate up to the present time, more than half a million more persons would have lost their lives. This improvement is the more remarkable when we consider that it took place during a period which brought the development of fast automobiles, faster airplanes, and a recent tendency on the part of some young people to take dangerous and unnecessary risks.

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Unfortunately, there is another side

to the story. While the death rate from accidents in 1953 was 60 per 100,000 population (the lowest on record) we still had a toll in the United States of 95,000 lives and 9,600,000 injuries annually.

Traffic accidents alone killed 38,300 persons last year — one and one-half times the number of Americans who died in the Korean War.

The time lost last year by workers from accidents of all kinds was equivalent to an entire year's shutdown of industrial plants employing 1.1 million men and women. In other words, removing from production all the plants of General Motors, Ford, Chrysler, and the United States Steel Co.

It is estimated that 1953's accidents cost our economy more than nine billion dollars, representing nearly a quarter of our budget for national defense. This sum becomes all the more staggering when the magnitude of one billion dollars is brought into more understandable focus. According to Paul Talbot, writing in the *United Business Service* recently, one million dollars is a stack of new one thousand dollar bills eight inches high. However, a billion dollars is a much different story. To provide this sum in new one thousand dollar bills, the stack would be piled as high as the Washington Monument and would reach into the sky for one hundred more feet.

We simply cannot afford such an appalling waste of manpower and resources if we are to maintain our strength and preserve our position of world leadership.

Safety And Efficiency Always Go Hand In Hand On Job

I have said earlier that safety and efficiency go hand in hand. I know this to be true. The mutuality of interest in safety on the part of management and workmen does much to build up a spirit of teamwork which is so important to the success of any business. It contributes to confidence and common purpose between all ranks of employees which are so vital to American Industry today.

As one travels about the country he sees modern industrial plants attractive architecturally, surrounded by well-kept lawns and grounds. Why do you suppose this is so? Is it merely for beauty's sake? No. Management has found that such expenditure of the stockholder's money yields a good return.

An employee who comes to work in good surroundings, who is able to leave his car in a well-lighted parking lot, who changes clothes in modern, neatly-kept lockers and washrooms, who works in a clean, well-ordered plant—such an employee will subconsciously work in a neat and orderly manner. The result not only is better safety, but both the quality and quantity of the product he produces is likely to be better.

Now let us take a closer look at where business management actually stands in relation to its safety performance.

Available statistics show that two-thirds of all industrial injuries occur in businesses with fewer than 100 workers. The accident frequency rate is more than double that of the larger companies, as pointed out by the National Safety Council.

I doubt whether these facts are widely understood by small business managements. The employer of a 25-man shop is likely to feel pretty good if he gets through the year with only one time-losing injury. What he fails to realize is that the equivalent safety performance in a plant employing 5,000 workers would mean 200 time-losing injuries.

Carelessness One Hidden Cost Of Small Businesses

As a result, small business directly or indirectly pays most of the estimated three billion dollar annual cost of occupational injuries, and its workers and their families suffer most of the consequences of the fifteen thousand occupational deaths and the two million occupational injuries. In addition to these tangible costs, the effect upon employee morale is considerable.

The irony of the situation lies in the fact that there is nothing in the operation of the small shops to make them more dangerous than large plants. For many years I have had the opportunity of watching at close range a safety program which has achieved considerable success in an industry that is not without its hazards.

In 1953 Du Pont operated 102 plants and laboratories. Seventy of these had no time-losing injuries, and twenty of the seventy had fewer than 100 employees. Of the thirty-two which had time-losing injuries, only three had fewer than 100 employees. This experience seems to refute the belief that small plants breed accidents.

What are the factors that will promote better safety in small plants as well as large ones? It has been proven over many years of operation at Du Pont that most important is a top management which not only sincerely believes in safety, but insists upon safety. This insistance must be a cornerstone of day-by-day management policy.

If safety is demanded at the top, and if it is considered importantly in a man's performance record, there is nothing in the world that can stop it from being emphasized all the way down through the ranks to the newest employee.

Other steps inevitably follow. Plant safety committees which include representatives of management as well as workers help to focus attention upon the problem, and it is further proof to employees that the company means what it says when it asks them to work safely. We have also found it helpful to rotate the membership of safety committees so as to enlist the interest of every worker.

The goal should always be preventive safety rather than correction after an accident. Plants and machinery should be designed for safe operation. Before a new plant or equipment is operated, it should be carefully inspected by a committee of the people who will be responsible for the operation, and they should consider safety as well as other factors. Protective clothing and equipment should be required wherever there is a potential hazard.

Safety training for the new employee is a vital essential. There is little danger of carrying it too far. The time lost in instruction will pay extra dividends. Not only will it keep the employee from falling into work habits that are inefficient as well as unsafe; it will also show the newcomer that he is regarded as an individual, and will early secure his loyalty. No one can have confidence in, nor be loyal to, an organization which ignores his welfare.

Smaller business will inevitably take up the challange of the industrial accident statistics. The rewards will be more than worth the effort.

Industry's Second Important Field For Promoting Safety

The second field in which industry, large and small, can do more than it is doing is in public, or off-the-job safety. Not only is there just as much human suffering, but there is just as great an economic loss in an injury on the highway or in the home as there is in the

plant. When a skilled workman is unable to report for duty, it is little comfort for management to reflect that the factory is safer than home or highway.

When it comes to off-the-job safety, let me cite what we have discovered in the Du Pont Company. In all of our plants and laboratories last year, we had *eleven times as many injuries to our people at home* or at play as we had at work. Yet—and this is important—our employees were three times safer off the job than the national average. Safe habits at work instinctively lead to safe habits elsewhere.

Recently the son of one of our employees went to work for the company. During his first month, he had one complaint which he confided to his father. His supervisors and his fellow workers had preached safety to him until he was tired of hearing it. He wanted no more of it. Then it happened. He came home one evening and saw a raised doorsill. "You know, dad," he said, "that isn't safe. I'm going to fix it."

The incident in that household undoubtedly is being repeated in homes of industrial workers throughout the country. Safety is contagious, and the habit cannot be quarantined.

Nevertheless, the problem of home safety is increasing. The magazine NATION'S BUSINESS recently quoted an insurance company as saying the new "do-it-yourself" trend accounted for 638,000 accidents last year, or 16 per cent of the home total.

Similarly, we don't need the grim reminder of the headlines in Monday morning's newspapers to realize that highway accidents remain our Number One Killer.

We have inaugurated an interesting program at the Du Pont Company's Experimental Station. On a volunteer basis, scientists and technicians who work there are attending lectures on better driving habits. They are taking a series of tests to learn just what to expect under certain driving conditions involving distance judgment, night and glare vision, and reaction time.

Since December, there hasn't been a traffic accident involving an employee of that Station, and there are approximately 2700 people there. A number have had their glasses changed, and some have reduced their night driving to a minimum. The flow of traffic in and out of the Station at peak hours is much smoother.

There is no compulsion upon employees to take part in the program, nor any attempt to control their activities away from work. The sole purpose is educational, to implant a will for safety, and convince the employee that safety away from the plant is important to the Company as well as to the employee.

Above all, the program stresses driving courtesy. The American people may be careless but they are not selfish. They learn quickly that courtesy and thoughtfulness on the highway begets courtesy and thoughtfulness from others. If you don't believe it, ask any cab driver, or better still, conduct your own experiment. If you slow down to let another driver come out of a side street or get into your lane, the odds are heavy that before you have gone a mile, you will see that driver extend a courtesy to someone else.

For forty years American industry has been the leader in the safety movement in this country. Management has accumulated a vast store of know-how. We understand the desirability and necessity for good safety performance and yet, within our own ranks, we have a wide margin between the best and the worst. We are not putting all our knowledge to work. This we must do.

Further, we must measure up to our responsibility and take the initiative in seeing that the principles which we have found successful are extended widely among our people.

Finally, our position of world leadership carries with it a grave responsibility. We must see to it that our country does not falter in these critical times. Management must be strong, must use its strength wisely to preserve our traditional way of life. Not to be safe is wasteful. To be safe is to be efficient. Without safety industry cannot be productive, and only by being productive can management be strong to help preserve the freedom of America. END

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by G. Jay Anyon, Ph. D.

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CHARLES A. JURGENSEN went to work in the machine shop of the DeLaval Steam Turbine Company upon his graduation from Rutgers University in 1931. From the machine shop he progressed through various manufacturing departments before moving into supervision as Foreman, Department Superintendent, General Superintendent, Works Manager. In 1950 he became a vice president and Director of the company. He is an active member of SAM

Planning To Meet Competition Today And In Ten Years

by Charles A. Jurgensen
Vice-President of Manufacturing
De Laval Steam Turbine Co

Business and industry is built on the premise that plans can be made to last. But the history of enterprise proves that plans must change. Can a plan be so conceived that its changes are within the boundaries of the original premises? This would be the optimum in management planning. The author here, a practical executive, says it can, and in this remarkable article outlines twelve operations that can project management through a competitive growth period of several years

Long range planning is often referred to as "star-gazing." Whoever heard of a hard headed practical business man or engineer engaging in such pastime? Too often our philosophy has been to take care of today's problems and tomorrow will take care of itself. The company that will be in business 10, 20, 30 or even 50 years from now must do both types of planning.

I admit that planning should not be that specific. Conversely a greater percentage of your planning should be for a shorter span than 10 years.

Plans for 1953 are now history. Plans for 1954 are now operations, and plans for 1955, 56, 60 and 70 should be taking shape to various degrees.

The subject of long range planning has many facets. It is my purpose to outline a program of action that is in operation in a moderate size company. Before I do this, try to visualize the magnitude of industrial growth that has taken place in the last 50 years in our United States. To evaluate past progress, I have selected a yardstick of three figures:

1. Our labor force has increased 119 per cent.
2. Our production of energy has increased 335 per cent.
3. Our production of goods has increased 372 per cent.

All of us will readily admit that industrial achievement has been tremendous but what about the future? Are we from this point going downward, are we to level off, or are we to go forward?

If we are to assume for the moment, favorable material supply conditions, which we can do with certain limitations, the size of output by 1975 will depend mainly upon the following factors:

1. The size of total population and working force
2. The number of hours worked
3. The accumulation of capital accrued by then
4. The rise in manpower productivity

The Commission extimates a population of 193 million and a working force of 82 million in contrast with the 1950 figures of 151 million and 62 million. A 15% shorter work week is assumed. The Commission has also assumed an annual rise of about 2.5% in production per man hour against a somewhat smaller past rate of 2.1%. It is further assumed that the rate of growth of the economy in the next 25 years will be no more nor less than averaged over the last century or about 3% per year. Three percent compounded results in a doubling every 25 years of the total output of goods and services.

Based on these assumptions the outlook by 1975 would appear something like this:

(A) Mineral requirements would be 90% higher than in 1950.
(B) Timber requirements would be 10% higher than 1950.
(C) Agricultural products of all kinds would demand 40% higher production than in 1950.
(D) Industrial water needs will increase 170%.
(E) Demands for total energy would double over 1950.

A breakdown of this energy forecast shows the demand for electricity would triple; the demand for liquid fuels would double; the demand for natural gas would triple; and the demand for coal would increase 60%.

Whether these percentages are correct is not too important. The important point to be emphasized is that the demand for all basic materials and minerals is expected to increase substantially.

This is not a popular line of thinking with most business men who have al-

ways been fearful of building too much future plant and capacity. Economic history during the last 50 years record more estimates of the future that were too small than those that erred on the other side.

The key thought of the President's Materials Policy Commission Report may be summarized in these few sentences. I quote:

> "Many unexpected turns of fate will occur in the next quarter century; one or more of them may have some deplorable effect upon business. But this Commission sees no reason to assume that a world that has been growing economically by leaps and bounds for many generations will suddenly become static in this one. If we are to believe in growth, it is essential that we show our faith."

With this brief look into the past and a far too hurried look into the future for our nation, let us for the moment agree that there is reason to couple long range planning with "day to day" planning.

To begin, the outlook for 1954 is less promising than was 1953. We are sure that competition will be keenest of any year since the close of World War II. Already we have encountered an obstacle that makes us forget future planning and think only of the problem facing us today.

We all have our specific problems. Some of our businesses are large, employing large numbers of people and involving considerable capital assets. Other of our businesses are small, employing small numbers of people and involving smaller facilities. However big or small may be our business, as plant managers we all have the same goal for our companies—that is to operate our companies profitably and to make them growing enterprises.

Business Success Impossible Unless Properly Planned

No business is successful by chance. It requires planning to make it that way. Too often small companies are apt to brush off the idea of planning for the future to any degree because they are not large enough to engage personnel for this work. Even a one-man business would not be successful, for long, if he lived and made decisions for today only.

My own company is typical in some one or possibly many respects to all companies represented here today. We started over 50 years ago to build a quality product in the heavy machinery industry. Today our plant is many times larger than the initial start. A considerable amount of our equipment and plant is new and modern. Part of it is old and some of our equipment should be replaced. Portions of our plant are crowded making material handling costly and difficult. The nature of our product requires highly skilled engineers and mechanics. It is seldom possible to employ trained personnel. Training must be done after employment. Most of our products are manufactured in relatively small lots. I am sure you will agree that some of these conditions coincide with your conditions in many respects.

We at De Laval Steam Turbine Company have reviewed the past analysing our pluses and minuses. We have also tried to gage the future—that which lies immediately ahead and that which is years away. We have studied the possibilities of growth in our industry and the need there may be for our products.

The State of Business In The Future

As the result of these studies our management looks forward to a state of business where competition will be keen and to survive we must be among the best. Beyond this we look forward to a period of long range growth.

With this outlook constantly before us, a program of action was developed covering all operations of the company. We believe our approach is sound since there is nothing new or novel about it. It is, however, a coordinated program that attempts to integrate today's planning with long range planning.

I believe that our program is basic and can be applied in principle to any company. It is with this thought in mind that we share with you our experiences, hoping that they may guide you with like problems within your company. I regret that time only permits a brief statement on each phase of the program.

Based on our experience we make the following suggestions to you for consideration in buildng a stronger company:

1. ESTABLISH INCENTIVES TO COVER ALL DIRECT AND INDIRECT FACTORY OPERATIONS. Unless your company is very small or highly mechanized it will difficult to control costs that meet competitive standards and at the same time provide take-home pay for your employees that will be competitive. Sub-competitive wages lead to sub-standard employees, high training costs, high scrap and high costs in general. If you contemplate an incentive installation and you are not familiar with incentives, be sure to get expert advice before undertaking the installation of a program. You cannot afford to blunder on such an important step.

Those of you who are familiar with incentive systems know that they cannot be put into operation overnight — they take a long time to install. The results are mutually beneficial to the company and to the employees and well worth your consideration if you are now a day work shop.

Budget For Indirect Expenses Is Important Item

2. SET UP BUDGETS FOR ALL INDIRECT EXPENSES AND A CONTROL PROCEDURE THAT PLACES THE RESULTS BACK TO THE SUPERVISOR RESPONSIBLE FOR INCURRING THE COSTS. For years management paid considerably more attention to direct labor costs than they did to indirect labor costs and indirect expenses. This is no longer wise. The dollar you spend for indirect labor is just as important as the one you spend for direct labor.

A budget starts with an accurate study of man hours and expense needed to support a given amount of direct labor in a department. A cost per standard hour is established for each type of expense. Costs are reported by account number and department and posted against the allowed expense. A supervisor is expected to meet his budget within a given margin of allowance.

The plant should be divided into Cost Centers. A Cost Center is a department or a group of departments usually under a general foreman and sufficiently separated for cost control purposes.

A weekly statement of all controllable expense compared to budget allowance is necessary for the supervisor to maintain adequate control.

A monthly budget statement combin-

ing controllable and non-controllable expense is issued to superintendents and division managers. After three years of operation with budgets it is our belief that a plant cannot afford to operate without a budgetary control procedure.

3. ESTABLISH PURCHASING POLICIES THAT WILL INSURE A BETTER VALUE FOR YOUR PURCHASING DOLLAR. We have all been subjected to the same problem for many years concerning the shortage of materials. We were forced to buy in many cases where material was available regardless of cost and quality. It is now time to check your list of suppliers, retaining as many as needed for each item that meets your specification of quality, cost, and delivery.

Suppliers should be considered part of your organization and top management should become acquanted with your key suppliers by visiting their plants and meeting their organization. It is equally important that the supplier's key personnel and top management visit your plant to see where the raw materials they furnish fit into your product.

Help your suppliers with technical problems in the manufacturing of your material to insure highest quality and least cost. Staff your Purchasing Department with personnel that know your product and your method of manufacture.

Buy competitively, weighing in cost, quality, and delivery. The lowest price of raw material may be the highest priced to manufacture.

Good suppliers is one of the biggest assets a company can have and remember, they must be successful for you to be successful.

4. SET UP A FORECASTING PROCEDURE, THEN ATTEMPT TO FORECAST SALES, EXPENSES, MATERIAL REQUIREMENTS, CASH REQUIREMENTS, AND PROFITS. Detail forecasts should be made one year in advance and adjusted every six months, dependent upon the trend of business. After these forecasts have been compiled, it is one of the factors that determines the amount of capital appropriation for the year ahead.

5. FIND A BETTER WAY TO MAKE YOUR PRODUCT. Engineers should be assigned to study methods, designs, processes and plant layout. As the result of this you will find ways of doing things that will save you dollars and increase your productive capacity.

Attention should be given to improving your plant layout to reduce handling and shorten material flow lines.

Small additional expense for tools, jigs, and fixtures often save many times their cost the first year of operation.

As much as we may want to carry on these investigations in conjunction with our regular duties, the pressure of "day to day" problems makes progress very slow. Our Company found it advisable to establish in our Industrial Engineering Department a Methods Department staffed with men and engineers who devote full time to finding a better way to do things and it has paid dividends.

6. SET UP A CAPITAL EQUIPMENT REPLACEMENT PROGRAM. We came to the realization a few years ago that we were not replacing our equipment fast enough to offset the tide of obsolescence. This would ultimately lead to what some have termed "Technical Bankruptcy". The problem was first to get the situation out in the open in sufficiently concise manner to display the facts. This should be undertaken in the following manner:

Problem Can Be Undertaken By Following Nine Steps

First: Be sure your equipment records are complete enough to give a description of the machine or equipment when purchased, whether purchased new or used, its size and capacity, and any other useful data. If this is not available a survey program should be undertaken for these facts are the basis of your capital equipment replacement program.

Second: Set up remaining life on each piece of equipment based on its date of acquisition, state of repair, usefulness, obsolescence, and plan for replacement.

Third: List equipment for year it will be fully depreciated, recording machine number, name, and depreciation reserve. Indicate opposite each piece of equipment whether it is to be replaced and the estimated replacement cost. The difference between depreciation reserve and replacement cost is the amount that must be taken from profits when you plan to replace it, and if prices remain at the replacement figure you have chosen.

You are already aware that this difference is a startling figure. You will probably find that you are not replacing your equipment fast enough in numbers and you begin to wonder if you ever will from funds available for their replacement.

These tabulations should be completed for at least 10 years into the future together with any years in the past.

Fourth: List your equipment, separating productive equipment and auxiliary equipment. Show ths by numbers of each graphically in a two-column chart.

Fifth: List your equipment by age groups using the following groups: 0-5, 5-10, 10-15, 15-20, 20-25, and above 25 years. Show graphically in a six-column chart the number of machines that fall in each age group. This gives you at a glance the status of your equipment by age. I know of no better way that tells you so much about your competitive ability.

Sixth: Study your equipment data and determine what is the minimum you must do yearly for the next few years to offset further trend toward obsolescence. Set up another program of what should be done if funds were available to reverse the trend.

Seventh: If you are a metal working company, check your company average tools and equipment over 10 years old with your industry average. This gives you some idea if you are keeping up with your competitors. These figures are available every 5 years from the McGraw-Hill Metal Working Equipment Survey.

Eighth: Establish yearly appropriation for replacement of the tools. Map out what you want to do for 1954 and set up funds to do it. If funds do not match your requirements you may have to adjust your requirements to the funds that are available.

Ninth: Work a year in advance on detail plans for capital replacements. Start planning now your 1955 program. Set up a justification for each piece of capital equipment that you want, showing data on new cost, depreciaton reserve, cost of repairs to existing equipment and savings that can be realized from new equipment. I suggest that you familiarize yourself with the Machinery Allied Products Institute Capital Equipment Replacement Formula. It will assist you in developing the facts and whether you can justify a replacement piece of equipment. Studies of this kind are the best tools at your disposal to convince you and your management on the advisability of new equipment.

7. PLAN PLANT EXPANSION 5, 10, 15, 20 years in advance, with a flexible step program. Most plants start as small enterprises and as a business prospers

additions are made to the plant. These additions are usually determined by funds available, minimum needs, and space limitation. Too often a plant grows in such a pattern that material handling costs, and other indirect expense, become too costly to meet competition. It is our belief that a company cannot afford to put off a study of growth possibilities until an addition is needed. There is not sufficient time to properly plan a long range program if it is left until a need for more space is upon you.

8. TRAIN REPLACEMENTS FOR KEY PERSONNEL. The development of a long range personnel building program is equally important to any problem facing management today. Too often we delay selecting a possible replacement until the need for a key man is upon us. When this happens the efficiency of your organization suffers. Take stock, particularly, of your supervisory personnel. Develop an organization chart and establish possible replacement for retirement and natural separation causes for each job. If no candidate is available for a position, start training one or more for this position. This process takes time and the need for the replacement is upon you before it is realized.

The Necessity For A Good Product Development Program

9. DEVELOP A PRODUCT DEVELOPMENT PROGRAM AFTER CAREFUL CONSIDERATION OF MARKET POTENTIAL, YOUR ABILITY TO a plan and called in one of the country's ABSORB THE NEW PRODUCT INTO YOUR ORGANIZATION, POSSIBILITY OF PROFIT, AND SALES ORGANIZATION NEEDED TO MARKET IT. The search for new products requires time and the constant attention of top management.

Technical advancement is obsoleting products at a rapid rate and unless you have new products to take the place of old ones you may soon find your sales shrinking. Few companies are large enough to have specialized staffs concentrating on this phase of development. It can be done within the frame work of your regular organization if sufficient thought is given to the problem.

It has been my company's experience that a greater percentage of profit is derived from our newer products and the least percentage from products that have been our established line for years.

10. KEY YOUR WHOLE ORGANIZATION TO CUSTOMER SATISFACTION. This involves close cooperation between the plant personnel and the sales and service personnel. It involves speeding up correspondence, sales quotations, engineering, material ordering, and finally process time. It involves the adherence to quality standards so as to minimize customer complaints and service calls. If your industry is one where repairs to your product are unavailable, set up in the field and within the plant a repair and service organization that will handle these transactions in the quickest possible time.

11. DEVELOP A STRONG AND COMPETENT SALES ORGANIZATION. All I have mentioned to this point are so many words without orders and customers. Your customer relations can always be improved and remember you are your customer's supplier. He too is going after a better value for his purchasing dollar; therefore, what you expect from your supplier is also expected of you.

New product developments may mean distribution and sales in new fields and among new industries. This situation can only be met by competent sales personnel trained in your product and trained to apply your product properly. If we are to grow and receive our share of sales, or an increased share, if that is our aim, we should be considering new sales territories and sales offices. It may also mean setting up foreign representatives if you intend to capture a portion of the export market.

12. IMPROVE YOUR EMPLOYEE AND PUBLIC RELATIONS. Industrial Relations should be considered on a par wih other divisions of the Company and should be under the direction of a full time member of the staff organization who is trained and fully qualified to handle this phase of the Company's operation. Too often the mistake is made that this function can be handled by another executive in addition to his regular duties.

Study your employee policies and revamp those that are interfering with smooth, efficient operation. Establish job rates based on job evalution and be certain to keep job descriptions up to date. Provide adequate employee facilities such as parking, lunch facilities, lockers, etc. Insist on a clean and orderly plant that you are proud to show your customers. The plant should also be well lighted and ventilated for efficient operation.

Every company has a civic responsibility in this community. Some companies do a better job of this than others. Do as much as you can—employees like to be associated with a company that accepts its community obligation. It is equally important to encourage your employees to accept their part in any civic program.

The 12-point program which I have just suggested to you has been successful in our company. We still have a long ways to go to complete the program as we foresee it. It has been successful because we have had the support of all employees, the unions, supervisory management, Board of Directors, and even the Stockholders.

In conclusion, may I suggest:

(A) That you lift your company's sights to a wider horizon and that you increase the depth of your planning.

(B) That you study the expected growth pattern of your own industry from all available sources.

(C) That you consider for your own company a plan of action similar to the one I outlined in detail, namely:

1. Establish incentives for all direct and indirect workers.
2. Set up budgets for indirect expense.
3. Establish purchasing policies that will insure a better value for your purchasing dollar.
4. Start forecasting of sales, expenses and profits.
5. Find better ways to do what you are now doing.
6. Set up a capital equipment replacement program.
7. Plan plant expansion years in advance.
8. Start now to train replacement personnel for all important and key positions.
9. Find new products or extensions to your existing line of manufacture.
10. Bring your whole organization into a closely knit unit whose aim is customer satisfaction.
11. Develop a strong and competent sales organization.
12. Improve your employee and public relations.

When you have done this, we believe your company has taken major steps to meet competition in today's market and in the years to come. END

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Using Standards As Controls In Factory Management

by Charles E. Heitman
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There are three basic elements to the administration of standard costs, says this author. They are direct material, direct labor, and burden. What they consist of, how they are used, and what the management can expect from their use, makes this article of particular value to every management man interested in modern control systems

STANDARD costs are established through predetermined engineered methods of producing a product by the use of predetermined materials. Element by element and operation by operation the standard cost is established, so that the sum of all the elements and operations represents the total. In accounting terminology, the various elements and operations are generally composed of the following: 1. A standard price for the specified raw materials or purchased parts, 2. A direct labor cost for each productive operation based on the existing hourly wage, and an expected rate of production based on a detailed engineering study, and 3. A standard burden or overhead rate usually expressed as a percent of the direct labor.

Thus, we have three basic elements: Direct Material, Direct Labor, and Burden.

I would like to make a general statement concerning the establishment of the standard for each of these elements. It must represent an attainable goal with existing equipment and facilities and with normally available materials. At the same time, it must not be contaminated with extraneous inefficiencies which are of a temporary or immediately correctable nature. It is in this area that the arguments or heated discussions usually originate. How can we be realistic on the one hand hand and yet not be too conscious of these temporary conditions on the other hand? Suffice it to say that the role of the standards engineer is a difficult one, but he usually does an excellent job in treading this very straight and narrow path.

In the area of factory standards, the non-manufacturing elements of management will frequently say that the standards are too high. "We're pricing ourselves out of business" they'll tell you. On the other hand, the factory man, and particularly the department foreman, will usually complain that his standards are too low. "How can they expect anybody to meet such a low standard" he'll say. "They're just taking it out of my hide because the Sales Department isn't smart enough to get more money for our product".

The tendency will always be for top factory management to keep the standards on the tight side in a somewhat futile attempt to keep the heat on the shop supervision, and similarly the tendency will be for the shop people to want a little extra allowance here and there to keep the heat from getting too intense.

Thus there is a tug of war with rarely a complete agreement, unless and until both ends of that rope realize they're on the same team and should be pulling the same way. Now it may seem strange, but it can be done, with the full and willing participation of all levels of factory management.

Among the many factors which must be taken into consideration in determining a standard factory cost, is volume. There will certainly be no disagreement when I say that the fixed portion of unit cost will vary inversely with volume, and that the direct labor cost is usually considered to be independent of volume, although there are many cases where the latter is not true. But when we get to that broad expanse, that disputed territory or no man's land between, that's where the argument starts, and that argument centers around the question of what is fixed expense. Now we know that insurance, taxes and depreciation are fixed. But how much other expense is also fixed or at least semi-fixed?

I believe we could agree that there is some of it in every factory organization. It's present in the General Manager's Office, it's present in the Works Manager's Office, it's present in the Superintendent's Office and it's present in the area of the

departmental foreman. The problem is to approach this area realistically—to determine what it is, where it is, and what, if anything, can be done about it. We're just kidding ourselves if we expect the foreman or general foreman or superintendent to do something about it when the general manager himself couldn't do it if he were in the same shoes. The general manager must, therefore, determine for himself what can be done—what is a reasonable expectancy —and do it if necessary.

In any event, let us say that that portion of department burden which represents its legitimate share of these semi-fixed expenses, and which is usually applied as a so-called distributive charge, is definitely not under the control of the department foreman. Let us, therefore, not saddle him with that responsibility, because there are plenty of other costs to which he can better devote his efforts.

Since the element of total burden is not under the complete control of any one level of management, it appears that our previously stated concept of cost being composed of Direct Material, Direct Labor and Burden, is not conducive to the establishment of clear-cut areas of responsibility. I hasten to add, however, that this does not destroy the value of a standard cost system as a means of control. Perhaps it just needs a little modification.

The basic elements of cost align, then, in this manner:

Five Basic Elements Of Costs & Their Alignment

1. Raw materials or direct materials which, except for quantity discounts, will vary directly with volume.
2. Payroll: a portion of which will normally vary with volume, and a portion of which will not normally vary with volume.
3. Indirect materials and services which normally should vary with volume.
4. Fixed charges which do not vary with volume.
5. Other operating and non-operating charges which may or may not normally vary with volume, depending on their specific nature.

Now we're talking specifically about the department foreman, In which of these areas can he be most effective as a control agent? There isn't much point in talking to him about the cost of raw materials. He doesn't specify or purchase them. Although he should be careful of their use so as to avoid scrap, he can't do much about reducing the basic cost. Likewise, the fixed charges and the other operating and non-operating charges are far beyond his direct control.

What The Foreman Can Do About The Payroll Problem

But he can do something about that portion of the payroll that is in his department and which usually amounts to a sizeable portion of conversion cost. Likewise he has control over the indirect materials and services rendered to his department, but let's further concentrate on payroll control.

The department foreman is a most important members of the team, without whose efforts the rest of the team would be pretty well sunk. He is, generally speaking, a fellow of above average intelligence, honest, sincere and cooperative, or the chances are he wouldn't have been selected for his job in the first place. He wants to do a good job for his boss, and in the area of cost control he will do it if he knows how. We must see that he does know how, for here is the keystone of any cost control system. Here is the fellow who spends most of your factory cost dollar and if he doesn't understand what you mean by cost control, he goes merrily on his way, while you sit upstairs tearing your hair and watching your costs go sky high.

In any manufacturing operation, whether we use a standard cost system or not, someone must be responsible for and have control over each item of cost. The standard cost system provides an excellent vehicle for the transmission of detailed cost data to every segment of the management team. From estimating to sales for pricing, and from estimating to factory for control. Now let me emphasize again that the only man in your factory who can control cost is the fellow who spends the money—and he can do this only *before* the money has been spent.

These so-called "cost control" groups that many factories have are not really controlling costs. They are recording data, after the fact, and feeding this data to the various levels of factory supervision to do something about it, and the fellow who does something about it, usually the foreman, is the one who is actually controlling the cost.

Since it does no good to "close the gate after the horse has been stolen", it is likewise of questionable value to criticize a foreman for poor performance last week unless you can direct him to ways and means of preventing a recurrence this week. Who can remember, in detail, what he did last week? Neither can Joe Foreman do it, and when you present to him today the results of his operations last Thursday and ask him "how come?", he's bewildered. He doesn't know because he can't remember. Now just in case some of you may have super-duper accounting systems, so that the data you present to him today cover his Monday's operations — and that would be pretty good timing — I would still say it's too late for effective control. Joe Foreman must know today the results of his operations yesterday and, better still, he should know today how he performed today.

Picture Of An Actual Scheduling Operation

Several years ago our Accounting Department's schedule was such that they were submitting to the shop complete detailed cost data by account number for each department on the fourth day after operations. This was the best they had ever been able to do with a reasonable force of people, and thought they were pretty good, but I had so much pressure on the shop for better performance that they were complaining that they didn't get their cost data soon enough to exercise effective control. They requested that we do whatever was necessary to advance the schedule so that the operating results would be available no later than *two days* after operations.

I agreed wholeheartedly that this would be a very desirable and even a necessary move. We gave it a lot of study and came to the conclusion that even though we doubled the accounting force, we couldn't do much better than three days consistently and that two days was practically impossible. As a further result of this study, we came to the conclusion that much of the data on these so-called "budget reports" was of little control value and was presented in a relatively ineffectual manner for day-to-day control even if it could be made available the next day.

In the average department in our plant, roughly 75 per cent of the dollar cost over which the foreman has control

is in the department payroll. The remainder represents expense materials and services—such as machine maintenance—services purchased from other divisions, etc. We, therefore, felt that if we could devise some system to aid the foreman in controlling his manpower and get this information to him quickly—the next day if possible—we would have an excellent control over 75 per cent of his cost rather than a poor control over 100 per cent of his cost.

Such a system was devised and after going through many changes, we have finally arrived at what we consider a very effective and workable scheme.

A standard cost system involves a routing sheet for each part, listing the operation, the department performing, the equipment to be used, the production per hour, the standard labor cost per 100 pieces, and the standard productive hours per 100 pieces.

If we made only one part we wouldn't need a routing sheet, because everyone would be so familiar with that one part it would become second nature. Likewise, we could measure the output of the factory or of a department in terms of the number of parts it produced. But since we make a multiplicity of different parts, we need routing sheets to keep everyone straight, and we need a common denominator to measure output. This common denominator is standard hours.

Efficiency is usually considered to be the ratio of output to input, whether it be an electric motor, a gas engine or a steam turbine.

Now just think of this for a moment. We have in our hands 75 per cent of the cost incurred in the department and there's nothing there that the foreman can't figure for himself—in a simple department. In the more complex units he will need some help. He can count noses to get his total attendance hours and he can count pieces and multiply by the routing sheet standard hours for each piece to get his total output hours. In the simpler departments, he can do this in fifteen minutes after the end of the work shift, and in the more complex departments he can certainly have this information available by the next day.

A further extension of this program permits him to take his production schedule for the next day or even the next week and determine how many standard hours he must produce to meet that schedule. Then from a predetermined goal of manpower efficiency which ties in with his standard goal for direct labor and department burden, he can determine the total attendance hours allowable to meet that schedule. This tells him how many men he can have on his payroll to meet his standard cost.

Everyone likes competition. Either competition with himself from day to day or with his fellow man. A very necessary ingredient to the enjoyment of competition—an essential element to making it a game—is to know and understand the rules and to know how to keep score. No one can do an effective job without getting some fun out of it, and he can't have fun with his job unless he knows what his goals are and is able to measure his performance against that goal. Furthermore, both the goal and the measurement must be in terms of things over which he has control and understands.

The goals need not be fixed. In fact, they must not be fixed, except for short periods of time. The goal must be flexible so that it can be adjusted to represent reasonable achievement under existing conditions, and yet not to be too easy or too difficult of attainment at any one time. No one likes an easy task, but likewise a goal can be set so far from immediate attainment that it robs the individual of his enthusiasm. He may feel that he has lost the race before he starts—and just relax.

We are now deviating from the common understanding of the word *standard*. Irrespective of what Webster might say to the contrary, in the minds of many people the word "standard" signifies something which never changes. That philosophy can be a pitfall in the use of a standard cost system. I once had a boss who didn't like any kind of standard because he said it stifled progress. And he's right, if we use the word in its strictest sense.

But we mustn't use it in this sense. Standards must change and we must be ever alert to see to it that they do. No one can deny that the standard of living for the average individual has improved tremendously in recent years. This can happen only through an ever-increasing production of goods and services, with fewer and fewer man hours of effort. Old standards are constantly giving way to new ones in practically every field of endeavor. Even the age-old platinum bar which represents the standard meter is about to give way to a new standard of measure, the wave length of light. As new machines and new processes are developed, today's factory standards will give way to new ones. And as our foremen and all levels of supervision become more and more familiar with their individual part in controlling and reducing cost, added impetus will be given to this change.

The department foreman is a very busy man. He is responsible not only for meeting or improving costs in his area, he also has to meet a schedule, maintain good relations with his workers, see that discipline and order are maintained, see that each worker knows or is taught how to do his job in an efficient manner. He is responsible for safety, the maintenance of his equipment, and a score of other items.

I said a moment ago that in the area of cost control, he will do a good job for you if he knows how and that we must see to it that he does know how. How do we do this? By training—constant training. Not just a one-shot deal and then forget it, but daily guidance and counsel sprinkled with a generous mixture of training sessions to familiarize him with all elements of factory cost, but especially those under his control—and furthermore *keep* him familiar with these factors.

No system ever ran a factory. But systems do help if they are understood. Whatever your cost control system may be—and it doesn't have to be this one—don't mislead yourself that it is really effective unless and until it meets these requirements:

1. That someone is assigned the responsibility for each of the many items of cost.
2. That the area of responsibility is clearly defined.
3. That the responsibility is limited to those items over which the individual has actual control.
4. That attainable and understandable goals are established.
5. That a measuring stick is provided to measure progress against this goal.
6. That this measuring stick is simple, easily and quickly applied, and in terms which the individual can understand.
7. And finally a continuing training program for all levels of management to maintain the present techniques and to inject new approaches from time to time as they may develop.

There is no magic answer to the problem of cost control and I don't present this as such. It's a tough job, requiring a lot of hard work on a day-to-day, hour-to-hour basis. It certainly isn't a one-man job, and the more people you can get working with you the greater will be your success. END

CHARLES T. McNARY, as Personnel and Public Relations Director of Blue Bell, Inc., is responsible for the public relations program of his company's 28 plants located in seven states. His many years of experience in the social service and industrial fields include serving as General Secretary of the Y.M.C.A., Industrial Relations Director of U.S.O., and director of Job Relations Training for the War Manpower Commission Training-Within-Industry Division. Mr. McNary has been for six years Secretary of the Society's Greensboro Chapter

Influence Of The Classics On America's Industrial Economy

by Charles T. McNary, Director, Personnel and Public Relations Blue Bell, Incorporated

Surveys show that more and more businesses and industries are looking for rounded backgrounds in their young managerial talent. Companies have found that the executive with the wide background makes the better manager. This article explains why this is so, and outlines the influence the classics have had on the history of all American economy

SHAKESPEARE, a popular and financially-successful playwright, was greatly influenced by his reading of the Bible. He quoted the Bible over 400 times. A famous business executive has said key people should be interested in the classics, since they give a true picture of people, not a superficial one. Management's greatest problem is how to deal with people. The more we know about people, the better we learn how to obtain their interest; for, after all, it is the supervisor's job to get what he wants done, when it should be done, and to have people find satisfaction in doing it.

Education should be thought of as a life-time process in which one continues to learn and to grow in mental stature as he meets new situations or improves present practices. A truly educated person never thinks himself educated. He will find that with all his getting, there will always be the issue between moral and intellectual education, and between liberal and classical training. However, I believe most of us will agree that the aim should be to make earnest, great-hearted men, and not merely accountants, attorneys or engineers.

There is a danger that education will become one sided; either mostly mathematical, mostly literary or mostly something else, when is should be one or more of these, plus art, science and religion. A liberal education is nothing less than a complete one, within the limits of reason and imagination. I am sure we are all familiar with the query, "Can one know all about one subject without knowing something about all?"

It was Rosseau who said, "Who can best endure the good and evil of life are the best educated."

Alexander Meikeljohn said, "He is one who knows how to read, write, speak and listen." These are the four major arts in which few are evenly proficient. For some helpful suggestions on the art of listening, I would like to refer you to an article in the Colliers monthly under date of July 1953.

"No one," says T. S. Eliot, "can become really educated without having pursued some study in which he took no interest, for it is a part of education to learn to interest ourselves in subjects for which we have no aptitude."

Pindar said that our chief duty consists in "becoming who we are."

William Whewell avoided such tangles by saying blandly that the purpose of education is to connect a man's mind with the general mind of the human race.

The completely educated person is one, we must suppose, who has settled some sort of relationship in his mind between the past, present and future—three goals in one, and worship of them should be wisely distributed.

Emerson says we estimate a man by how much he remembers. Memory performs the impossible for man, holds together the past and present, and gives continuity and dignity to human life. Memory—this is the companion, this the tutor, the poet, the library with which we travel. Only yesterday (November 5, 1953) we read an excellent editorial in the Greensboro, N. C. Daily News entitled "Who Reads Poetry Nowadays". "Man has no deeper or more constant desire than for 'beauty of expression', old yet ever new, eternal voice and inward word." To memorize the good and beautiful is to exercise the mind toward constructive development.

The reason for shallow thought is short memory. We can do no better for a child than store his memory with things deserving to be there. We take for granted mathematics must be learned, but passages of verse or prose come back to us in middle life with interest and there are no tables to compute. If such nuggets of truth were put there to stay, they

would be present to modify every thought and action, when thought and action count.

"Modern Imagination," says Scott Buchanan, "is notoriously weak and spastic;" and his explanation is the failure to train the memory so that it can hold on to good things.

Education is of the hand as well as of the head and heart. Some of our grey matter seems to be in the fingers, which had better be familiar with their hidden wisdom.

Thoreau said, "Our reading, our conversation and our thinking are all on a very low level, worthy only of pygmies and manikins."

Envision a certain dream of the future. In order to impress people with the need for continuing an all-round education, we should discontinue the giving of separate diplomas for grammar school, high school, college, etc.; instead we should issue a certificate to each young person with circles or squares for seals or emblems denoting certain accomplishments. One seal would be for grammar school, another for high school, and one for college, but they would be granted only if the student completed certain classical or general educational courses; otherwise, he would be given only seals or emblems recognizing the fact that he had acquired a certain skill, such as in accounting, engineering, law, etc. By this method of recognition one would be constantly reminded of his or her illiteracy in certain fields or areas of learning.

What Actually Should A Modern College Be?

College is, or should be, a place where he who was a child begins his study of the rules by which he may become a citizen in the republic of human understanding. The function of the college is to show him the way; to provide discussion rooms and laboratories where he may anchor his speculations in deeper exercises of the useful arts. The opportunity of the college is to open up the realm of reason.

The value of a liberal education is to educate a human being to live in all four aspects or his nature—mental, moral, physical and social; to learn to live completely, to perform justly, skillfully and maganimously all the offices, both public and private, in times of war and peace.

As one strives for this completeness of life, it is our conviction that one cannot do so without some study and knowledge of the classics—Greek, Latin or modern foreign languages and literatures, which are being sadly neglected today. Greek has suffered almost complete eclipse. Latin has suffered less. In most colleges Latin is offered only on an elective or voluntary basis. The civilization which is unlocked, particularly through the Greek language, is for sheer intellectual power, for great literary moments, for philosophy, and for enduring art—one of the greatest created by man.

Tremendous Influence Of Greek On Language Today

Greek has had so tremendous an influence on subsequent civilization as to prompt a great historian to say that there is nothing in this modern world, either intellectual or artistic, that is not Greek in its origin. The great Roman people with their peculiar administrative and practical gifts were able to take the Greek and Oriental civilization and to coalesce them with their own to form the world basis for the rise and spread of the new Christian civilization; moreover, when completely studied, not merely in linguistic form, but as the expression of the life and thought of a people, they become an illuminating revelation of the intellectual and artistic sources of our civilization. The study of Latin is also a real help toward a better understanding of our own language.

Two to four years of Latin or Greek never can achieve all the objectives of the study of the classical languages. One might quote, "Drink deep or taste not the Pierian spring." Yet we hasten to add, even a little learning in these subjects is better than none.

The study of Latin will result in some degree in increased appreciation and more effective use of English in the following ways suggested by "The Classical Investigation."

Five Major Ways Latin Can Help In Use Of English

1. To understand Latin words, phrases, abbreviations and quotations occuring in English.
2. To understand the exact meaning of English words derived directly or indirectly from Latin, and to aquire increased accuracy in their use.
3. To speak and write correct and effective English through training in adequate translation.
4. To spell English words of Latin derivation.
5. To know the principles of English grammar, and to have an increased ability to learn the technical and semi-technical terms of Latin origin employed in other academic studies and in professions and vocations.

There are many cultural objectives—by products of the study of Latin and Greek.

1. The development of a historical perspective and of a general cultural background through an increased knowledge of facts relating to the life, history, institutions, mythology, and religion of the Romans; an increased appreciation of the influence of their civilization on the course of western civilization; and a broader understanding of social and political problems of today.
2. Increased ability to undersand and apprieciate references and allusions to the mythology, traditions and history of the Greeks and Romans.
3. The development of right attitudes toward social situations.
4. A better acquaintance with some of the personal characteristics of the authors read through the study of their writings.
5. Development of an appreciation of the literary qualities of Latin authors and development of a capacity for such appreciation in the literatures of other languages.
6. A greater appreciation of the elements of literary techniques employed in prose and verse.
7. Improvement in the literary quality of one's written English.
8. An elementary knowledge of the general principles of language.

Why are these classical languages and other humanistic subjects such as religion, history, music and the arts, philosophy, languages and literature, neglected today? Have we forgotten the general aim of education—to challenge and to develop the all-round man—or have we allowed the urgency of the times to force our students to vocational preparation and specialization?

It is my firm conviction that a study of the arts should be required or pre-

scribed for students before they are allowed to turn to their professional preparations. I learned just recently that our own State College at Raleigh is graduating engineers with not more than 24 to 26 required hours of study in the so-called liberal arts courses.

School authorities blame the narrowing of the curriculum to engineering subjects only to the attractive salaries being offered graduates by industry, and to the taking of students by the Army and Air Corps of the government, when they have not as yet completed the college requirements, even in engineering. Should these two pressures be eliminated or lessened, then perhaps the school authorities can turn again to a better balance in curriculum.

Then, too, there is a confused educational ideology on the part of the school administrators themselves. Some still question the value of the classics as a part of a secure foundation to various superstructures. Others, and I share their concern, contend that a combination of both classical and technical knowledge gives the education of the whole man. Where either one of these is neglected in college, this void or gap may be somewhat compensated for in later life through an adult educational program, provided our people recognize their

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cultural inadequacies.

Let's look at the educational requirements in a changing civilization. In accordance with the politics of Aristotle, there was an emphasis upon the practical or vocational objectives. In the Medieval —Social order training was mostly for teachers, priests and the social services. In the post-Renaissance era they stressed a liberal education for those in charge of or associated with the social and economic life. Today, liberal education continues this tradition of its relation to man's vocations.

Before the 20th Century we had a predominantly agricultural economy and little or no specialization. Such an agricultural economy had the possibilities of genuine development in intellectual and spiritual life of man as great literature and history opened up possibilities.

The 20th Century ushered in an industrial economy with a division of labor now so refined that each person has a very narrow range of experience. Under this economy, which is largely a money economy, we perform our little duty, receive money to purchase entertainment on a spectator basis, rather than as a participant.

This is the day of technological advances, under which there are certain educational losses; loss of genuine experience, loss of an experience to interpret great literature, and loss to education because restriction of basic experience limits possibility of development.

Some of the problems of our industrial economy, such as the problem of child labor and the excessively long working hours, have been satisfactorily met. Under an industrial economy there are still the problems of working mothers, broken homes, increased hours of leisure, juvenile delinquency, the triviality of the life of women, and too much emphasis upon money.

Industrial Economy Places New Burdens On Modern Youth

How times have changed from the era of an agricultural economy to that of the industrial economy. Now unless youth has money, they cannot enjoy working hours or leisure. The description of youth in contemporary times reveals the reckless speed, fitfulness, sexual unrestraint and alcoholism, which indicates that young people do not dream that opportunities for constructive work exist.

Along with our vocational and specialized training we need to help people find in work and in leisure the highest human satisfactions possible. For persons engaged in trades or the mechanical arts, there are always the spiritual hungers, the human curiosity, the soul-longings for higher things. These human needs must be satisfied. We must remember the working time of the workman is not the major part of his living hours.

Vocations, too, have changed under our industrial economy. Ministers no longer are concerned primarily with theology, but with social service in the recreation room and the management of parties and even Bingos. Lawyers have become file clerks, court lawyers.

The general, liberal or classical education should begin with birth and continue through life. Liberal education and vocational education are two different things, but they happen to the same individual and must be related to his whole personality.

In line with this education of the whole personality we quote from the Fortune magazine, April 1953, to show the changing attitude of our business executives. The title of this article is "Should a Business Man be Educated".

"U. S. business is talking a great deal these days about its need for more broadly educated men. Business wants more men who have acquired the range of interests and mental disciplines that education in the liberal arts and humanities is peculiarly well fitted to give. More and more frequently U. S. executives are heard to say that they can (within certain obvious limitations) create their own 'specialists' after they hire them; that what they need and can not create is men with a decent general education."

"The specialization is shocking," a company president complained to a recent gathering. "We're all obsessed with 'expertive'. Specialization is robbing business of potential top management material. A total of 50 colleges and universities checked are giving less and less fundamental education than before. Business is partially blamed for this lack on the part of trainees. When it posts its demands for college-trained men, its personnel recruiters are coached to look for specialists rather than check English qualifications and the graduate's ability to write, speak and think in a commendable way."

The solution suggested in the Fortune article is that "educators must start talking back to industrial leaders. We must again attempt to prepare broad-gauged men. We must change the curriculum requiring more educational subjects and much less vocational."

National Magazine Points Out Possible Key To Solution

"Business should:

1. Reduce its demands on the colleges for specialists, even if this means paying for greater on-the-job training opportunities.
2. Corporations should give more generous financial support to the private liberal arts colleges, now the principal buttress against over specialization.
3. Top business men sitting in on college and university boards will have to give at least moral impetus to general educational programs in under-graduate schools.

"The need for technically trained people was probably never greater than it is now. At the same time, we were never more aware that technical training is not enough by itself."

In concluding our message and summarizing the material presented, we would make the following observations:

We are interested in education, be it classical or vocational. They are both instruments of freedom and culture. The proper training for skills should involve: much science, some history, and a sense of social usefulness and significance.

Two outstanding social facts emerge:

1. The increasing leisure of man on every social level. Less and less of life is given to his actual working hours—the work day has changed from 7 to 6 to 5 days per week, with a lessening in the number of hours per day. The 19th Century leisure was a relaxation from an exhausting labor. Today, there is less fatigue or exhaustion in work and less need for freedom from drudgery.
2. The increasing life span of the individual has increased from 50 years in 1900 to 67 years in 1952.

There remains the duty of colleges to set up in the student's mind and heart a lasting relish for the better kind of man. This involves a loss of appetite for mediocrities and a disgust for the cheap in life.

Leisure, which should be a great opportunity for intellectual and moral growth, is dissipated because too many of us are without resources, without altruism, without vision of social and human good, without which people perish.

A proper education should prepare people to make intelligent judgments and to make firm decisions to follow a way of life that befits man.

The manual worker needs a classical education for the same reason as the barrister or doctor—that he may develop his faculties and play a reasonable part in the affairs of his company and community. We must not neglect the training of citizens—the whole of man—for the training of workers.

The classics will remain always important as preparation for a business career, for each student, all employees and for every citizen. END

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WILLIAM E. McCAULEY, an authority on Personnel Management, is currently doing job analysis and evaluation, wage and salary administration, personnel research and exit interviewing for a large American industry. He is Chairman of the Bulletin Committee of New York Personnel Management Association and the author of numerous articles and books on personnel and communications problems

Destruction Of The Merit Increase

by William E. McCauley

The incentive value of the productivity raise in pay is gone, says this authority. Management itself almost destroyed the meaning of the merit raise. What can be done? This author describes today's situation, gives solutions, and tells what three large modern companies are doing about it right now

ANY MANAGER worthy of the name knows that in order to give increases really based on productivity he had better both find out how much his productivity has risen and, more important, why. It could be due to better machinery alone, or more efficient work alone, or a combination. An abnormal demand for his product could permit him to raise his prices and sustain his volume, giving him the same net effect as an increase in productivity. And yet, with any possible combination of these and other variables at work, most manufacturers still know nothing about the internal productivity variations of their factors of production; few manufacturers can give a complete, cogent picture. This does not halt a rising tide of productivity increases.

It is depressing to reflect that the productivity increase could be made a dynamic force in industry for actually increasing the productivity of the workers. As now practised, the manufacturer in effect says to the union, "Now, I estimate, on the basis of very shaky data, that the productivity of the work force has risen about two and one-half per cent per year. Therefore, in the future, wages will be monotonously and consistently raised by that amount."

From the viewpoint of the worker, it is hardly an inspiration. No matter what he does, the two and one-half per cent will still go marching on. It has no direct connection with any action on his part.

This approach, unless coincidentally accompanied by an actual over-all increase in plant efficiency of that percentage or more, can only result in more inflation, and no real long-term return to the work force, the company or the economy.

This is not to suggest that another approach is easy. The flat annual percentage is as easy as it is meaningless. But to do the more difficult job is a lot more honest and permanently valuable to all concerned. And perfectly within the bounds of possibility, as any statistician will tell you. Union men are not, after all, different from other men. They do not like hand-outs, and will take them only in lieu of the better plans which management has the duty of constructing. Union leaders and members have as recognizable a stake in productivity as anyone else.

On this subject of productivity, there are many who will protest that management can do nothing with unions. But how sincerely has management tried? As industry has grown, management has been too prone to take the easy path, the blanket formula, with a minimum of involvement or work. The flat percentage, repeated each year, is trouble-free, automatic, and utterly ineffective in accomplishing its purpose.

To illustrate this failure of management, let us turn to the relatively uncluttered relationship between the management and the unorganized personnel —the file girls, office boys, salesmen, engineers, junior executives—those with whom the personal equation is still supposed to count. Here is a unique situation, where management is king, and unilaterally determines what the relationship will be. The employee has only two alternatives. Work under the terms the management has set, or resign.

The management has the freest hand, and therefore could be expected to have developed the highest degree of competence and efficiency. Management should here be doing the most effective job of rewarding productivity. Historically, this has been handled in two ways: promotions and merit increases.

Promotions constitute a relatively minor factor; management is left to rely most heavily, therefore, on the double-barreled device of the merit increase. Double-barreled, because it constitutes both a reward for past per-

formance and a spur to greater productivity in the future.

The hard-headed manager, through competitive necessity, is not too concerned with the reward aspect. But he should be vitally interested in the implications for future productivity. Instead, he has permitted the entire merit increase structure to come crashing down around his ears of recent years—and with certain notable exceptions he seems not to have heard a sound. The merit increase has been his sole tried-and-true method of encouraging high productivity among the unorganized—who may still be *forty* to *sixty* per cent of his payroll. He has let it become so enmeshed in his general increase program that he has nothing left but complaints about how he can't get a decent day's work out of anybody any more, as though it is not his own fault.

General Increases Versus The Merit System

A graph representing a long-term employee who has achieved moderate success within a corporate structure, would show an alarming development in the payment of salaries—greater individual progress through general increases than through the merit system. The merit system is in grave danger of going into the discard, which is an amazing fact when we consider that all the tools for saving it are at hand.

To understand what has happened we must go to the prime mover for the general increase; the union. Unions are eternally after more money for their members. The increased wage is the tangible evidence by which union leaders prove their effectiveness.

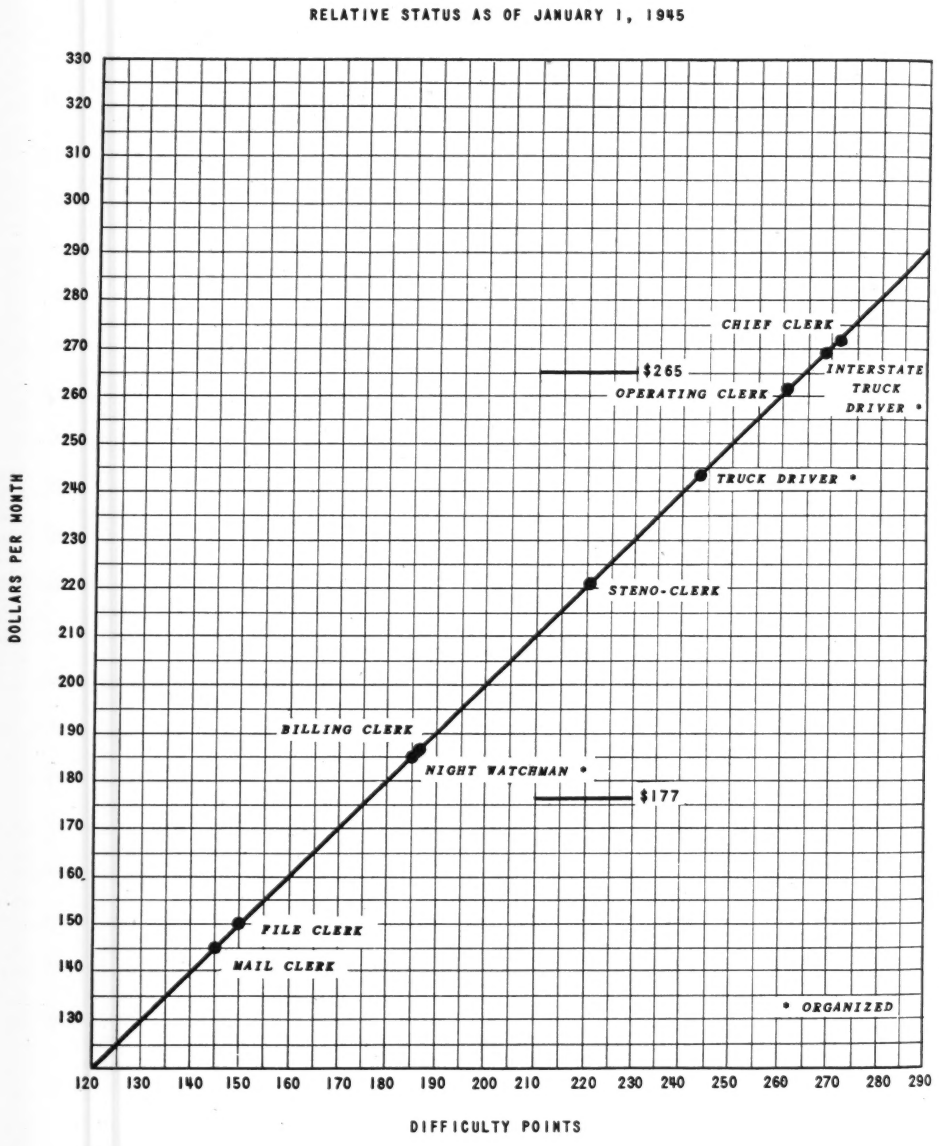
Inflation is not the *concern* of the union leader and there is no reason why it should be. For until it reaches the point of economic disintegration, it has little effect on the rank and file. Until the second World War most workers spent all their wages on current expenses and savings were negligible.

Since the war the worker has done better. He has some assets: a house, a car, insurance. But whatever he has is more than offset by debts and mortgages. On short term, he not only has no stake in a stable currency, but inflation actually enables him to pay off his debts and mortgage faster.

Besides, achieving a general increase early has a short- and long-term effect. First, the early winners have more real money to spend until the others get theirs and prices rise. Second, most people are still not organized and they may take several years to catch up, keeping prices lagging still longer. And so the rise in cost of living does not keep pace with the constant rounds of general increases in many companies and therefore the beneficiaries of general increases have definite real as well as just monetary advantages.

All of this, as has been said, is perfectly legitimate union activity, justified by their continuing struggle for existence. But where the increases won by the union have been extended to all employees in general increases, at least all the additional money ordinarily available for cost of living, productivity, merit, insurance and retirement has been absorbed.

To restore its profit position, therefore, the company caught in the general-increase wringer must take a more realistic attitude on union demands. The program should begin with the following steps:



I. *Abandon the General Increase*

As a company-wide policy, it magnifies the effect of the position into which the union has jockeyed the company. The increases granted, despite all pseu-

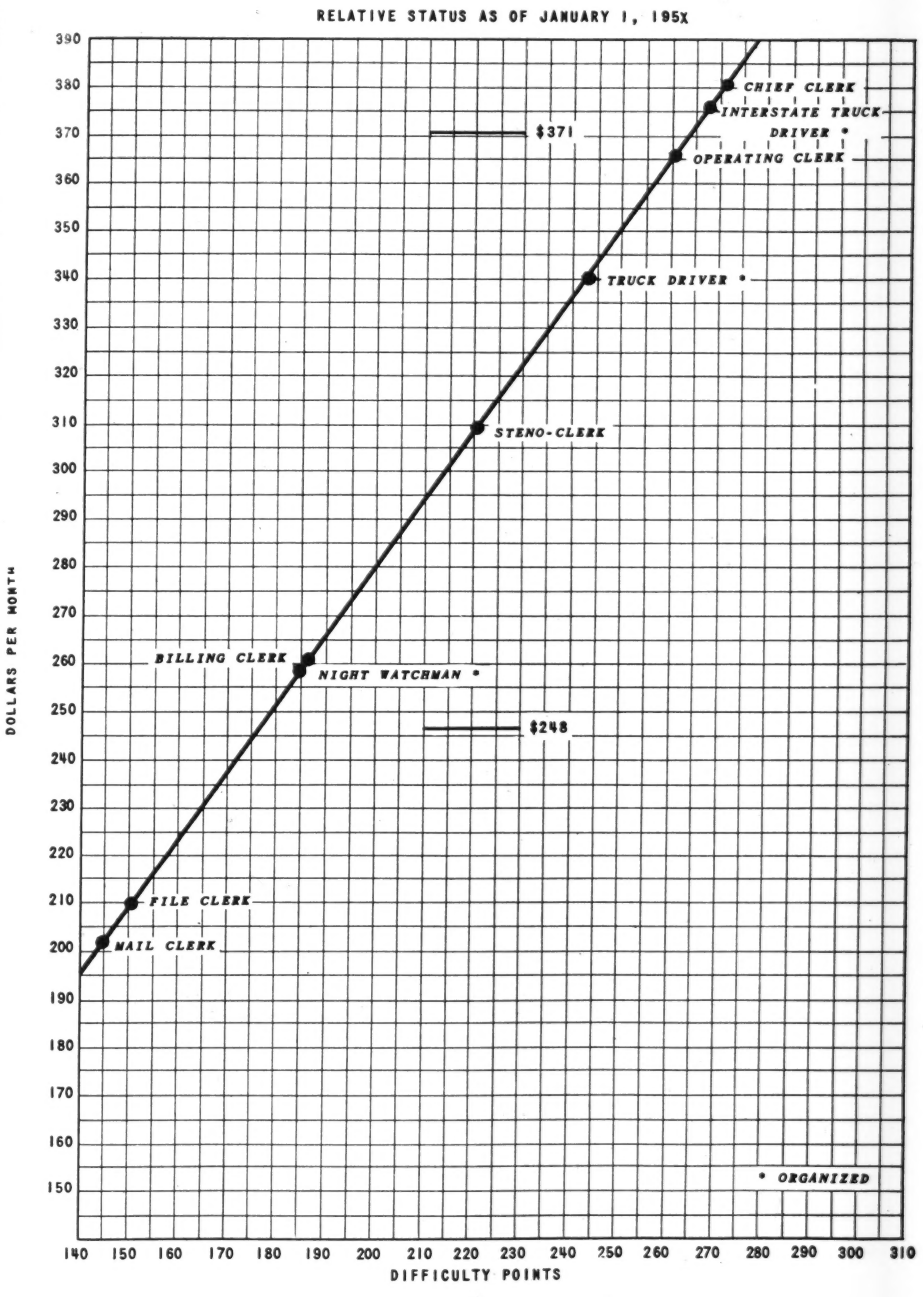
Increases are sought on the basis of productivity, cost of living, insurance and pension needs, and so forth. No one, especially a union leader, is so naïve as to believe that the grounds for the increase are logical and valid. The increase demands are based on an appraisal of the company, the industry or economy, and the conclusion that there is more money to be had.

dosc:entific justifications, are the result of force or threat of force. They have little or no relation to actualities. Where the union succeeds in obtaining an increase, limit it strictly to union men.

II. *Increase Resistance to Union Pressure*

Factors of Production

As we have seen, increases are claimed on the basis of productivity, ability to pay, etc. Often the company gives in because it does not itself know how its productivity has varied. It is in the uncomfortable position of not knowing when it can afford an increase. A sound basis for response is the best answer to the government or public pressure. Although these situations are fraught with emotion and not always responsive to logic, the company would be better off if it knew the facts.



What often escapes management is the damage done by the general increase down the line. The morale of newer employees who have known little but general increases is terrible. A good job as distinguished from a poor job is no longer adequately reward.

The long-service employee, who was doing well when the general increases started to roll in, has been brought to a level even higher than he could have attained on a strict merit increase plus cost of living basis. In other words, without necessarily earning a merit increase, he has had it. Because of general increases, salary increases since 1946, even considering inflation, have been at a greater rate than ever before in man's history. And paradoxically, although he may be in the minor executive category and would never consider having any truck with the union, he has only the union to thank. While it is true that he would have advanced a certain distance on merit and cost of living without the union, he has gone further because of it.

The main office view is that the general increases are necessary on two counts: first, if the union men deserve increases, so do the rest of the employees; second, if only the union men are taken care of, everyone will join unions.

Increases Won By Unions Cover All Employees

The first count needs some expansion. It is not a tongue-in-cheek attitude with most executives, or a cover for a union-prevention program. They really feel that nothing the union members do entitles them to an exclusive increase. To say the least they do not do more than the unorganized. Therefore it is only fair to give everyone the benefit of any increase won by unions.

At the same time, the union-prevention factor is definitely in the picture. Management feels it must convince the unorganized that they are at least as well off as the organized. Possibly they do not know how to handle the latter, and do not want to learn. Whatever the reason, the average manager feels:

1. Unions do not bargain sincerely. They do not come to the point in negotiations and just mark time until the government steps in and gives them what they could not achieve through a test of strength. This may change with the new administration, but the manager has had so many years of intervention that he will take a little while to believe it won't happen again.

2. The manager is saddled with work-

Where the proposed increases tend to push the company's wage bill out of line with that of competitors, stand a strike rather than accede. Continued misalignment of the wage bill without compensating increases in unit productivity will eventually bankrupt the company. The company must take a stand before reaching this point.

III. *Undertake Intensive Study of*

ing rules that ruin his flexibility: ridiculous overtime rates, limitations on work schedules, seniority rules, etc. The manager has an objective: to make his schedule as soon as possible and at as low a cost as possible. *Nothing* in his union relations furthers this objective.

The two points of view can be reconciled by a continuation of the program previously outlined:

IV. *Extended Measures of Individual Performance*

If the general increase is abandoned there will have to be a good substitute for it to answer the two requisites of fairness to the non-union employees and sapping the incentive to join unions.

The merit rating programs employed by most companies are basically sound, and have fallen into disuse only because there has of late been no point to merit rating. They should be revived and used in conjunction with a job evaluation program. The results should be examined, to:

A. Insure that the merit ratings are carried out. This is easy when the general increases for non-union personnel are abandoned, since there will then be no alternative to merit increases, which should be given on no basis other than a complete program.

B. Study the merit-rating results to insure a correlation considerably less than 1.00 with seniority.

C. Where seniority seems to be the only guide, call this to the attention of the supervisor. Proof that he is doing this should be enough to induce him to change his method.

D. Study the latest merit-rating programs to possibly find something better, which would avoid the halo effect and make the ratings more meaningful.

Nothing Gained By Uneven Distribution Of Increases

This apparent overemphasis on a sound merit-rating program is intentional, since with the abandonment of the general increase, there will be substantial sums to be distributed strictly on a merit basis, as we shall see. Unless the distribution is equitable, the program is pointless. It will be neither fair to the employee nor reduce the appeal of the union.

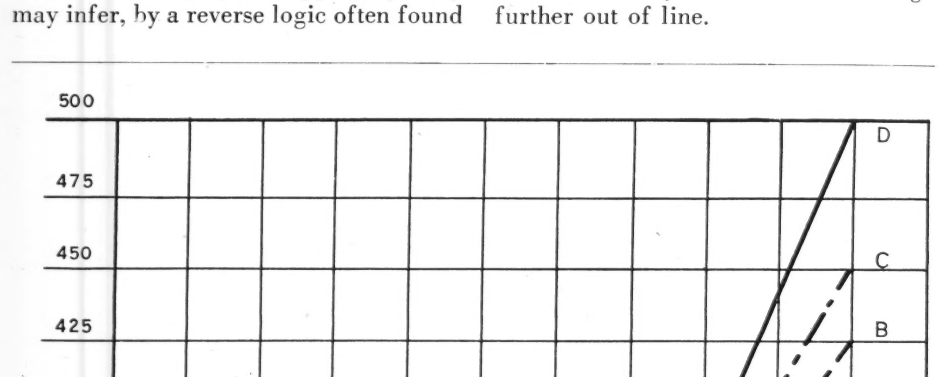
The employees must feel that salaries are administered on a sound evaluation of individual performance so that one incentive for unionization—"you might as well anyway, since they'll never get around to noticing that you are doing a better job than anyone else," is removed.

V. *Restrict Cost-of-Living Increases*

These increases are now automatically granted to everyone, on the assumption that equity demands that all be sustained in the same relative position. However, two categories of personnel should be denied cost-of-living increases:

A. Those whose performance is below average, but not inadequate enough to bring about dismissal. (Dismissal is a difficult, if not impossible, step in many large corporations, and most unfair if the company has compounded its personnel liability by keeping the incompetent on the payroll for a number of years). The constant increment they are receiving through general increases is no spur to greater effort or better performance, either by them or the more satisfactory employees. Oppositely, they may infer, by a reverse logic often found in such cases, that their salary progress is indicative of satisfactory performance. They usually have no reason to think otherwise since, as has been demonstrated, they progress more rapidly under the general increase program than they ever could have hoped to do if merit had continued to determine increases.

B. Those whose job evaluation indicates that they are being overpaid, known in salary administration parlance as red-circle cases. They came by their inflated salaries through an unusual combination or circumstances, or were believed to be doing a more significant job than they actually were. Their profiting by past errors in salary administration should not be perpetuated and compounded by general increases. A denial of any increase in these cases would allow the groups to catch up to the red-circled cases in a fairly short time. Otherwise, they will continue to get further out of line.



Job Title	*Difficulty Points*
Mail Clerk	146
File Clerk	151
Night Watchman*	184
Billing Clerk	185
Steno Clerk	221
Truck Driver*	242
Operating Clerk	263
Interstate Truck Driver*	267
Chief Clerk	271

*Organized

These are not all the jobs, naturally, but a few chosen to show the relationship. Assuming each difficulty point represents one dollar per month at the beginning of the program, the jobs (not the incumbents) line out along a 45-degree curve like this:

VI. *Resume Merit Increases*

In the future, when the occasion arises which would ordinarily call for a general increase, the management should make this available to all department heads for merit increase purposes. Unquestionably, some portion of this will have to be used for cost-of-living compensation, but it should not be so identified. In this manner, the red-circled and the incompetent employee can be by-passed, for the reasons given. For the rest, if should be agreed that all *satisfactory* employees will receive at least that percentage which would compensate for the increase in cost of living. Beyond this, consideration of the employee's performance record and position within the group will indicate what additional salary action is appropiate. It is at this point that adequate measures of merit and performance are important.

Establishing Incentive To Improve Effort

This discretionary action will re-establish the incentive for better work which is the foundation of the merit increase. Even if the increases are distributed with comparative lavishness to the better employees, the manager will find that he will seldom use up as much as the general increase would have allowed, since so many of the overpaid and inefficient are by-passed. In the rare cases where the entire available percentage is used up, the management will have the even rarer satisfaction of knowing that the funds are being well spent in the furtherance of inducements to harder and better work.

A logical approach to the problem by a major soap company took the following course:

First, an extensive program of job evaluation was undertaken. This was done, fortunately, many years ago, and so they have been able to keep the organized and unorganized personnel in the same relative positions. A typical illustration of the scale is shown on this page.

Determining Amount Of Increases By Review Of Record

With the Steno-Clerk centering at $221 per month, a simple 50 per cent spread establishes a minimum for the job of $177 and a maximum of $265 per month. Within these limits, the performance review determines what the individual salary will be. Performance reviews had been done annually, but with the union securing frequent increases, the reviews are done semi-annually, so as to keep each personnel file in current condition for discrete action.

Assuming that organized personnel have received cumulative increase of 40 per cent over a period, setting two or three jobs on the scale will give a new line. Since the jobs are the same, the difficulty points are the same, and you have only to sight along the difficulty point line for any unorganized job until it intersects the new wage line to determine where the salary should be. Of course, the plot given is not the first new line constructed since the original line. The gap of several years and a radically different line emphasize the immutability of the relative positions.

This is oversimplified for illustration. The night watchman and truck driver may not always fluctuate with such precision. But even when they do not, a composite of all the organized jobs will give an accurate enough line for comparison purposes. The constant matching of unorganized jobs against this line will always give a measure of internal consistency and warn of any imbalance.

Scale Determines Minimum And Maximum Salary

On the new scale the steno-clerk job should center around $309 with a *mini*mum of $248 and a maximum of $371 per month. A supervisor operating a steno pool may be told by management that he has annual increment of $5,000 to be disbursed as he sees fit (within the limits of the job) among his employees. This $5,000 for his employees would equal, on a percentage basis, whatever the union has just won. But he is not required to distribute this in equal percentages. Instead he will first review his performance records and bring all satisfactory employees to at least the new minimum. The balance of the money he will distribute in varying percentages, so as to conform with his ideas supported by his records, of how his personnel should be dispersed throughout the group. In this manner, all increments are strictly on a merit basis and are so identified although the original percentage increase for union men might have been won on cost-of-living, productivity or whatever.

The manager of a production unit on a profit-and-loss basis will have the same percentage of payroll made available to him, to be disbursed in like manner, but he does not have to use it up completely if it is going to put him in the red. He can use as much of the available funds as will not threaten the black side of the ledger.

Of course in practice, the manager will use up as much as he can, safely (preferably all of it) lest the central management suspect him of covering poor management with abnormally low salary schedules. This is an automatic check on the short-sighted penny-pincher who might otherwise defeat central management's purposes in trying to equal for the unorganized the advantages won by the organized.

What about the over-compensated and relatively unsatisfactory workers, who suffer by this program and who would

profit by general increases? Do they tend to be disgruntled and comprise good potential for unionization? The over-compensated are quiet, since even a union could do nothing for them and might even bring their inflated salaries down to a lower norm. The less satisfactory are numerically insignificant, since they tend either to drift off the payroll when they realize they are being left behind, or the progress-on-merit-only system causes them to change their ways.

In any event the personnel administrators of this company, who are an astute, realistic group (you don't sell a program like this to management in the face of the easy, more popular road of general increased unless you have a high degree of stability), have been keeping their ears to the ground. Morale surveys show a minimum of dissatisfaction and as wide an acceptance of the program as they could wish. In other words, the logical, well-thought-out program, patiently developed over a long period of time, turns out for them to be the best program. This is to be expected, since no personnel practice such as the general increase, which is based solely on expediency, ever can hope to be as satisfactory as one based on thorough logic.

Solidarity Of Unionized Employees Is Recognized

What about organized employees? While not sanguine about probable moves in this direction, we should recognize that there is great need, and the greater peril of creeping inefficiency if nothing is done. First, let us recognize the difficulties. On the surface, it seems hopeless. Unions are committed to a solidarity which seems violated by merit increases. No doubt the unions would greet superficial proposals with open hostility.

An interesting variant of the merit system, in effect when the unions were making inroads on the sweat shops, makes unions highly suspicious of any but very concrete proposals. At the time, "merit" increases were given to workers who were the best tools of management, those who best followed orders, were best disciplined, respected management, did not mind being put upon—and were least likely to join unions. The merit rating had little to do with actual ability to produce high quality or quantity.

Why bring up systems reminiscent of the speedup at this point? Because if a merit increase system went into effect among organized personnel, it would undoubtedly include vast numbers of workers whose duties are eminently measurable—people who fill cans, punch holes, assemble parts and so forth. Obviously merit and quantity and quality of production would be closely intertwined. Here measures of merit and productivity would be almost identical.

Defect Of The Piecework System Reviewed

Any system, therefore, would, have to be hedged about with inviolable guarantees that the fruits of the efficiencies achieved by the work force would be retained by the work force—which points up the greatest stumbling block to a sound program on the management side of the fence. Management's concern is too often with how much the worker is earning, per hour, week or year, when compared with a worker in another company, rather than with how much the worker is turning out for his earnings. Going back to the piecework system, its only defect was the constant attempt by management to recapture all or part of the increased worker earnings due to more efficient methods of work.

There seems to be a congenital inability to understand that if you want to have a worker produce fifty per cent more through his own initiative, you had better see to it that his earnings rise just that much—and stay there as long as the production rate does. The earnings cannot be recaptured without torpedoing whatever program caused them to rise in the first place.

In sum, these are the obstacles to recognition of merit of organized employees, but they are not insurmountable. We shall turn briefly to three examples where something has been done about encouraging unions to attain greater than average proficiency without the use of an annual "productivity" increase. They were not designed exclusively with individual merit in mind (two in fact concentrate on group production).

Nevertheless, all these plans point the way. They illustrate that with a little thought a sound plan can be developed which will win union acceptance. In no case was the union a stumbling block, although in all cases the existing union was strong, well-entrenched, and as militant as any.

Bundy Tubing has a plan for sharing savings in labor costs with employees. The company studied the relationship between the sales dollar and the wage bill. It was found that wages averaged thirty per cent of the sales figure. Thirty per cent of sales was set as the wage allowance. Should the wage bill fall below thirty per cent of sales, half of the difference between the allowance and actual payments are credited to the work force and paid out in equal shares.

Now while this is certainly no recognition of individual differences, it does place the emphasis on high productivity, to insure that the sales figure versus wages is as high as possible to assure as great a bonus as possible. It is an automatic merit rating of the work force as a whole. It is by no means perfect, but certainly far better than paying a flat, pre-determined productivity percentage annually.

The second plan is the Scanlon Plan, which has many variations but essentially starts off the same way, calculating the wage bill as a ratio of some factor of corporate activity which is easily measurable—gross shipments, net shipments, sales, and so forth. The percentage thus established is used as a norm, and when actual earnings fall below the norm, a bonus is distributed to each employee proportionate to his base earnings during the period the bonus was earned. Here the rating again is of the work force as a whole. But with distribution proportionate to earnings, there is some recognition of differences in job values. The laborer will not receive the same bonus as the die sinker.

Relating Base Rates To Individual Capacity

The Nunn-Bush Shoe Company also has a plan which establishes a similar relationship between the wage bill and the sales figure minus the cost of raw materials. However, one essential is thorough recognition of individual differences. Base rates for individuals are related directly to individual capacity. People doing the same kind of work have different base rates in accordance with their quantity of quality production. And when the production shares are calculated, they are strictly proportional to base earnings. This company is one of the finest examples of the strict application of merit rating with full union cooperation. In fact, if a worker consistently fails to meet the standard,

the union will request that he be dropped to a lower category of base earnings.

The common denominator of all successful plans is a strong manager with great understanding of motivating personnel. This type uses available funds deftly to bring out in his work force the highest productive capacity. A measure of his stature is his deep satisfaction at the greater-than-average earnings of his employees when these are coupled with low unit cost. He is usually owner as well as manager, or at least owner of enough stock that he cannot be successfully opposed by those of narrower scope. Implicit in this is the reason why such plans are not more widespread—most business situations are criss-crossed with divided authority, widespread ownership or control, making it difficult to overcome short-sighted opposition.

On the union side, the reception of these plans, even the more complicated ones, has been most cordial. Men will always make an effort to comprehend whatever is sincerely designed for their benefit.

A non-belligerent, cooperative attitude by management will be reciprocated by the union. Once there is a sustained effort to overcome the suspicions engendered by generations of disregard of each other's rights, a situation of mutual trust and cooperation will develop with surprising ease. Men want to trust one another, but need a reasonable assurance that the trust will not be violated. When methods of measuring work and payment for that work clarify the identity of interest of management and labor, the goal of maximizing production and minimizing waste becomes the single aim of the entire organization. There is a continuing awareness on both sides of the need for effective administration of the plan, and the erstwhile abortive strife is transmuted into a keen competition to determine who can contribute the most.

With so illustrious a record wherever there has been a sincere attempt to better the union-management relationship, it is evident that the extension of a merit-rating system to organized personnel is certainly not impossible, and probably much easier than anticipated. In any event, faced with the alternative of declining worker efficiency (however obscured by increasing mechanical efficiency), it is the duty of management to do everything possible to install a system among the organized as well as the unorganized, for the best interests of the management, the work force, the stockholder, and for society. END

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MARTIN J. MALONEY, Associate Professor of Radio and Television, School of Speech, Northwestern University, is known to the readers of various professional journals and reviews for his articles on communications problems. His research interests are concerned with communications generally, with special emphasis on rhetorical criticism, general semantics and broadcasting

Semantics: The Foundation Of All Business Communications

by Martin Maloney
Member, Board of Directors
International Society of General Semantics

Management communications does not mean expressing, then implementing in words or writing, a rule or program. The facts are far more subtle, more simple. This article breaks down communications. It is direct and clear, presented in part as an absolute transcription from the author's discussions with prominent management groups, who must remain anonymous for purposes of publication

GENERAL semantics has been applied to all kinds of things including dentistry, cost accounting, law, psychiatry, labor relations, indeed all sorts of specific activities and problems.

It is a general theory involving any kind of a situation in which human beings use words to each other, or facial expressions, or gestures, or any other kind of a communication medium. We must stress that at its fundamental root, communications is a general operation. Far from making it ordinary, it is this generality that makes it most important to management. It is used by every living human being in the world.

Most management men think of the process of communicating between one person and another as a kind of "pipe line" process. For example, could I stand before you and talk to you; and we assume that from me to 200 of you. (let us say) there run 200 little pipe lines through which my thoughts are conveyed to you. I would call up into consciousness my thoughts, experiences, ideas; I code them in words; the words are conveyed to you by the piplines, you then decode them into similar thoughts and ideas. We have communicated, we think. But this is a mistaken notion of how human communication works. What happens is a very different process indeed.

We appear to learn what words mean by relating them to our experiences. If you watch a very small child in the process of learning language, you can see him go and touch a table and then he will say "table"; then, perhaps because he gets some kind of approval for this accomplishment, he tries it again. There is a great release, a keen pleasure, in this process of learning to use language. We seem almost to order and arrange our experience as we acquire language with which to talk about it. We all learn life and language in about this way. We relate the noises we make, or hear, to our own peculiar experiences. This fact has a considerable significance for communications because it means that the simplest words that we use have an indefinite number of meanings.

What I mean when I say "apple" probably is my experience with apples, plus any experience I have had with the word apple. Your experiences will have been different, and consequently the meanings are different. Consequently again, if I talk to you about apples and we reach even a rough mutual understanding, that feat in communications is a remarkable thing. And it can be achieved only by a considerable degree of effort, a considerable degree of skill, and long practice in making the special agreements which make communications possible.

With this general background, let us go on to some of the special problems in communication, and specifically to the mechanisms which seem to come into play when one human being fails to understand another. In almost any situation in which business misunderstandings and frictions occur, one or more of the mechanisms which I am going to describe will be involved.

1. *Misunderstandings occur because people do not listen very well.* I don't mean "listen" in the simplest and most general sense of that term. We are able to distinguish a great many levels of listening. People who are involved in radio and television work for instance, frequently use the term "*marginal listening.*" This term is most often applied to the behavior of the housewife who turns her radio on in the morning, and then uses the noise that comes out of it as a kind of background while she is doing her chores. Of course she listens, but only in a marginal, half-attentive way.

Then we can distinguish, very roughly, a kind of behavior which we might call "*attentive listening.*" This phrase

applies to the situation in which you attend to the words that someone is saying to you, but you probably interpret them in terms of your own experience. You can distinguish and remember all the words that the speaker pronounces, but the meanings are your meanings, not necessarily the speaker's.

The third kind of listening — which I think is most important of all — is what I shall call, for lack of a better term, "*projective listening*". By "projective" I mean that, as you listen you try to project yourself inside the speaker's skin, so that you understand the experiences, feelings, assumptions, and so on, which motivate his words, you not only listen in detail to what someone is saying to you, but you make an attempt to find out what this language means to the speaker, which is a very difficult thing to do. Those of you who are familiar with Carl Rogers' work with non-directive counseling, or with some of the writing of Wendell Johnson, will recognize the concepts and techniques which I am talking about.

Projective listening is unusual. In fact, projective listening sometimes becomes quite painful, particularly if you are listening to someone with whom you disagree, or someone whose attitudes you detest. It is so much easier to refuse to listen, and instead to call names. But if you are willing to risk the discomfort, here are the two principal techniques involved.

Requisite State Of Mind Important To Real Listening

You cannot listen in this fashion unless you forget about liking or disliking the speaker's ideas. You must be concerned with understanding him and not kicking him in the teeth. This attitude, in itself, is most unusual. Then there is a very simple method for forcing projective listening: Before you speak your own mind, you must be able to re-state what your opponent has said in terms that he will accept. This technique has an amazing way of resolving arguments and reducing conflict. But, as I say, it is not very frequently used.

To sum up my observations on this point then, I should say that in many situations where people misunderstand each other, the misunderstanding occurs because somebody did not listen at all, did not listen adequately, or insisted on listening on his own terms.

2. *Misunderstandings occur when people assume that words mean the same to everybody.* This is, of course, a point which we touched on a moment ago; but I think it is important enough to merit separate discussion. The assumption that words always mean the same thing to everyone is very common; it is an assumption that most of us make automatically. I can give you an example of what happens as a result.

This is the story of the fellow who stalled his car on the highway. An obliging lady comes by and asks if she can give him a push. He replies, "sure, but I've got an automatic drive on my car and you will have to get up to 35 miles an hour before you can start me." So he gets behind the wheel to wait for the big push. After a few seconds of waiting he looks over his shoulder to see the lady tearing down the highway about a hundred yards astern of him, trying to get her car up to 35 miles an hour before she rams him with a horrible crash.

Assumption That Words Are Same To All Is Great Mistake

This is a good example of what happens when people assume that words mean the same to everybody. The point of the observation is this: You can never know what the other fellow means until you have taken the trouble to find out, until you have questioned hime carefully. Now there are many situations in which it is not especially important to know what the other fellow means. But where it is important, where you must reach a mutual understanding, or agreement, you cannot assume that words meant the same thing to him that they do to you.

3. *Misunderstandings occur when communication works in only one direction.* Any communication system that works in one direction only is a wide open invitation to misunderstanding and trouble. If I stand up here and talk to you and never get anything back from you, I have not the remotest idea of what sense you have made of my remarks. I know of studies made in university public speaking classes in situations where a speaker delivers an address to the class, and the listeners are then required to write a summary, a digest, of what he had said. The speaker checks the digests and selects those which are a reasonably accurate summary of what he said. What would you imagine to be the percentage of success in an experiment of this kind?

The answer is 25 per cent. Only 25 per cent of the individuals in a speech class could produce a brief summary of a speaker's remarks that come close to what he said.

As a speaker, you don't know what your listeners think you are saying. Somebody has to talk back to you. Communication must work in two directions before I can get some idea of what you have in mind. With a two-directional pattern we can eventually achieve a reasonably good understanding.

All management men must be interested in preventive measures against communication failure. Here are my suggestions:

1. You have to cultivate an understanding that words have meanings only in context and only in relation to the experience of the person who is using the words. This is a kind of awareness which should become automatic with you. It is not a technique in itself, but it produces techniques.
2. You should make provision for two-way communication wherever understanding is important. As far as I know, this is a universal rule. The kind of a message that runs in an organization from the top down, or from the bottom up, is likely to be dangerously ineffective unless you can also get a response back in the other direction.
3. Projective listening is tremendously important whenever you want to understand what someone is trying to say, whenever you want to produce agreement instead of conflict.

Case Histories Reveal Theories In Actual Operation

These are the fundamental generalizations. Now I will, in question and answer form, present some case histories.

Speaker No. 1: First an example that typifies the foregoing point about "apples". A foreman went into his department to discuss with his employees the necessity of working "as a team", for really getting the work out. He had a very inspiring talk about all the men pulling together as a team. Now, economic circumstances made it necessary to lay off a few employees within the week. Later, the President received a very heated letter from one of the employees in which she said the she had been highly abused by a foreman.

The letter went down the channels until it came to the source of trouble, where we investigated to find out what had happened. We called the employee back, and in an interview found that this employee accused the foreman of calling her a horse—because he asked her to work as a team—to pull together as a team. These are the actual circumstances involved in this case.

Mr. Maloney: I don't need to say anything about this story. How can you project a bigger projection!

Here is something that has occured to me off and on, recently. I keep running across various uses of the "team" metaphor. It always strikes me that this expression must be perfectly meaningless to a person who has never played team sports. It is an awfully good term to somebody who has, but what happens when the listeners' experience of "teams" involves nothing but horses?

Where Does 'Misunderstanding' Really Begin?

Speaker No. 2: The example I have now seems to involve no misunderstanding, but I wonder whether I might be "of base". A firm's employees had been on strike for almost two weeks. Management had adjourned and had come in with what they thought was a handsome offer to settle the negotiations. Management no sooner sat down and gave the offer than the union negatived the offer very strenuously. An executive immediately blew his top. I can't give you any examples of the speech, but this is an example of where they completely understood what was said with respect to the company offer. And yet there was friction. Could this be attributable to the semantics problem?

Mr. Maloney: What makes you so sure that the union representatives understood the company offer?

Speaker: Just the way they picked it apart.

Mr. Maloney: This is a kind of situation that I have always been curious about. I don't know the answer. But it always occurs to me that in a situation where you are negotiating, where you have split into two camps, there is always a terrific pressure toward simple opposition. It strikes me that this is a situation in which it is exceedingly hard, a situation in which people might think it is dangerous to listen carefully to the other fellow.

I remembers an article by Carl Rogers in which he describes the use of projective listening in treating mental disturbances. A psychotherapist may sit down with a paranoiac and try to listen to him in such a way that he can almost duplicate the meanings that the patient attached to his terms. This is a very difficult thing to do, as you can imagine. And Rogers further says that it strikes some people as being a dangerous thing to do. What you do in this case is enter into a disturbed and un-sane world, and you always wonder whether you will be able to come back.

In a situation like yours, where you are negotiating a two-sided dispute, I think you hesitate to listen to your opponents because you have the feeling that if you listen carefully enough you might not be able to oppose them very vigorously.

Speaker No. 3: This is typical of of situation in which there is lack of communication or poor communication. Some years ago when employees were hard to get and we were compelled to hire from the bottom of the barrel, the employment man escorted a new man to the locker room and pointed out his locker to him and said, "You get your clothes changed and I'll take you out in the department." The man turned to the employment man and said, "Mister, you'll have to give me a bigger locker than that. I can't get in there."

Modern Jokes Sometimes Rely On Misunderstanding Of Words

My second case involves the foreman telling a man to take "that carboy of acid and put it in that tub" whereupon he did just that—carboy, acid, and all. I think we have improved on that since then.

Mr. Maloney: No comment is needed. I am sure you could compile a whole anthology of misunderstandings and their consequences.

Speaker No. 4: Several years ago we felt we had to pick a new foreman. In order to pick the best possible man we decided to try something new and take the chance of trying six different men. We had never done this and it was new to the people in the plant. We talked about it at great length, to see whether it would be acceptable to them—give six men a trial and pick one of them to fill the position that was open.

We got varying reactions to it but there was one situation that rather baffled me. In talking to a group of three men and asking their opinions, I found that two of them were generally favorable to the proposal, but when I asked the third man what he thought he said, "You know what I think? I think you have decided to shut down this whole refinery and all you are trying to do is salvage two or three fellows who you can take up to Cleveland." Believe me, that was so far away from what we had in mind that we just couldn't understand his conclusion.

Mr. Maloney: Did you ever ask him?

Speaker: Yes, we asked him but he always said the same thing. He certainly had a distorted viewpoint on the situation.

Behavior Common To Everyone Still Presents Serious Problem

Mr. Maloney: Well of course that is rather a common kind of behavior, and one which we have been discussing tonight. We all tend to do it; that is, we observe the behavior of other people and then start making up explanations of why they act as they do. How do they feel? What do they have in mind? And so on. And of course, we have to do this; or otherwise we shouldn't know how to behave toward others. But the catch comes when we invent an explanation—when we say to ourselves, this is what this fellow said, but this is what he really has in mind—invent an explanation and then refuse to modify it, refuse to correct it according to new evidence. Such rigidity is generally a most unhealthy sign.

Speaker No. 5: Just recently I had the opportunity to address an organization of which I had been a member. But I had received a promotion, and in beginning my talk to them I said I was going to talk to them from the level of a Store Manager—which was the group I was addressing. What I meant was that all I knew was what I learned as a store manager and would talk at that level. Days later I started getting reports that said—it was nice of me to drop back to their level again just to talk to them.

Question: Mr. Maloney: I have several questions I would like to ask you as a group. I made the general statement that a communications system which does not operate in two directions is dangerous, i.e. it leads to misunderstanding. Now there is an additional question that I can't answer. and I would like you to answer it. Is it practical in the businesses and professions with which you are con-

cerned, to set up such communications systems? Is it practical to set up situations in which the subordinates talk back to the foreman? Can messages be moved from low to high as well as from high to low? I don't know, and I would like to have your answer.

Another question: You have all had experiences, I would judge, in conferences and meetings in which there have been serious divisions of opinion. Is it practical, is it workable to do the sort of thing that I have described as projective listening? Can it be done?

Answer: Mr. Maloney, I would like to take your question and restate it in two parts: Is it possible to get two-way communication from the highest echelon of management to the immediate supervisor over the employee? This is the first part. Then secondly, is it possible to get two-way communication between the immediate supervisor with 5, 10, 15, 20 employees, and the employees themselves?

I would like to ask someone in our audience, first, whether it is possible to get two-way communication in the first situation, i.e. within management itself?

A. I think it is possible. We do it every day and I believe we do a pretty good job.

Mr. Maloney: Is it possible between the supervisor and the employees?

A. Yes. I think it depends on the conditions under which you are working. I suppose if you have a union shop it might be a little more difficult than without a union. That is my opinion.

Mr. Maloney: One reason why I have raised this question is that I have no practical knowledge of your problems. I did see the book on business communications which was originally a series of articles in FORTUNE, *Is Anybody Listening?* The impression I got from this book is that in business you get too many one-way situations. In effect, very frequently a man is talking to himself when he thinks he is talking to people under his supervision.

Type Of Personality Always A Decisive Factor

A. I think that depends on the type of foreman. There are foremen that can get through to employees and vice versa, and there is understanding. Then of course, there is the old type supervisor who has his way of doing things and he intends to have the last word no matter what. In this latter case I don't believe there is two-way communication.

Answer No. 2. I have always been of the opinion that if supervisors, in giving instructions to their men, would follow a procedure which often is used on railroads, there would seldom be mistakes or errors because of failure of communication. If you give an order to an employee and you doubt that he understands completely what you have said, ask the man to repeat what you have told him. In that way you will seldom have mistakes or errors. I have found this to be foolproof.

Question On Area Of Projective Listening Is Relative

Mr. Maloney: What about the other part of my question—the matter of projective listening where you have conflict? Does that sound to you as though it is a practicable notion? Do you think it would work in your situation? It works nicely as a matter of theory, and it works well in a great many practical situations that I happen to know about, but I have never seen it operate in conferences to any great extent. To rephrase my idea: In a meeting where you have a sharp division of opinion between two people or groups, it is sometimes possible to eliminate or reduce that conflict, if one person (or group) is willing to listen to the other side without making any attempt to oppose their point of view, and is willing to re-state the opposition point of view in terms that the opposition will accept. I have seen this tried several times; occasionally three or four efforts at restating are necessary, but the technique seems to work almost miraculously. Is this likely to be useful in business meetings with which you are familiar?

A. Don't you need a moderator in that instance? An impartial moderator who directs that?

Mr. Maloney: That might be true, although it does not seem to be necessary to have a moderator to mediate between the two sides. A person on either side can take this initiative. That is, if he simply stops fighting and says "Is this what you mean?" and keeps it up until he is able to state his opponent's case in terms that the opponent will accept. That technique seems, in an incredible way, to do away with argument; or in any event, to reduce argument to an extentional basis. At least you are not arguing over my interpretation of what the other fellow is thinking, or over my hurt feelings and what I think the other fellow is attempting to call me. You are arguing over issues and facts that you can examine together, and of course, in such instances you can settle your disputes rather easily.

A. My suggestion of a moderator was prompted by the fact that I attended a university where we studied under the "preceptorial" system. A group who took history for example, and studied the life of Garibaldi, might read various forms of reference material. The professor then acted as moderator to develop the pros and cons of the discussion. He would take a viewpoint opposed to that of the speaker, so as to gain participation. By taking the opposite viewpoint he developed a great deal of participation, much information was presented, and in that way the students learned.

Mr. Maloney: If I understand you, you could be using almost the reverse of what I am talking about as a teaching method. Instead of trying to find out what the student has in mind when voicing his viewpoint, you deliberately figure out a statement that is opposed to what he has to say. You do this presumably to stimulate him and to get from him all the information he has. That of course, is a technique that is used in teaching and it is probably good, because in a classroom situation, if you stir up a little argument, so much the better. The argument produces livelier participation, and you are not so much concerned about reaching agreement or making decisions. In a business organization where sound decisions and mutual understanding are important, the situation is very different. END

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Chapter Notes . . .

The Baltimore Chapter's Second Spring Conference featured a talk by Dr. C. Canby Balderston, Professor of Industry and Dean of the Wharton School of the University of Pennsylvania on "The Art of Decision Making", a subject of great interest to good management men. Chapter President Richard T. Jenkins also introduced the six SAM members chosen as "Personalities of the Spring Conference," Robert H. Roy, William B. Bergen, J. Theodore Wolfe, LeRoy A. Brothers, Dr. George Brown and Frank Z. Oles.

At a round-table discussion held by SAM members in conjunction with hospital authorities, the Baltimore Chapter tackled the deeply absorbing subject, "Management Helps in Maintaining Mental Health of Employees". After a tour of the Spring Grove State Hospital, Dr. Earl K. Holt, Assistant Commissioner, Department of Mental Hygiene, and Dr. George F. Sutherland, Chief of Psychiatric Division, informed SAM members present on progress made in reorganization of the Maryland Mental Hospital System.

At a pioneering symposium held under the joint sponsorship of Wisconsin Chapter Members and the Wisconsin Hospital Association, a discussion centered around the organized search for better and more efficient methods of reducing hospital costs. SAM management men present urged use of the "Methods Engineering" departments used today in many industries as a formal continuous part of hospital administration. A keynote speaker of the day was John H. Smith, General Manager, X-Ray Department, General Electric Company, Milwaukee.

At the Worcester Chapter's May 18th meeting the titilating title, "Mesh Your Gears, Neutral Gets You Nowhere" prefaced a rousing speech on management given by George Motherwell, Vice President of Wyman-Gordon Company. Trained as an engineer, Mr. Motherwell believes that when the gears of management are meshed too tightly the result is interference and overlapping of functions with no room left for the lubrication so necessary to smooth operation.

At a Board Meeting of the Dallas Chapter members were treated to a down-to-earth talk about a subject of vital importance to management men in industry, the place of research in a virile organization, by E. Finley Carter, Vice President and Technical Director of Sylvania Electric Products, Inc. Stressing methods of financing such research, methods of control, tools and communications, Mr. Carter outlined benefits realized by Sylvania in terms of inventions, products and patents as the result of a strong program of research.

The Work Simplification Courses conducted by SAM members of Philadelphia on behalf of the departments of the City Government have been vitally important in increasing the efficiency and productivity of city operations, resulting in savings to the community amounting to thousands of dollars. Top SAM management men give weekly class-room instruction to Philadelphia city employees and aid them in solving specific work problems.

Portland SAM members have formed a Small Business Counseling Group which advises free of charge any small businessman in trouble who seeks solution to problems pertaining to the operation and management of their businesses.

A round-table discussion by Washington D. C. Chapter members and their wives received nation-wide publicity when their "Management In The Home" idea was commented upon in a recent article in COLLIER'S magazine.

The membership drive of the New Calumet Chapter resulted in the doubling of their membership in the past year.

And as we go to press with this issue our Chapter Activities editor advises us that the Kansas City and Wooster Chapters are neck and neck for the Harrington Emerson Award.

CHAPTER MEMBERSHIP STANDING

July 1, 1954

CHAPTER	TOTAL	CHAPTER	TOTAL
New York	400	Richmond	68
New Jersey	399	Wilmington	66
Philadelphia	327	Hartford	64
Cincinnati	308	Lehigh Valley	64
Chicago	283	Reading	64
Cleveland	272	Charlotte	63
Pittsburgh	234	Columbus	61
Detroit	214	Central Penna.	59
Lancaster	214	Alabama	56
Boston	210	St. Louis	54
Washington	207	Bridgeport	53
Milwaukee	154	Clearing	52
Los Angeles	149	Knoxville	50
San Francisco	144	Western Mass.	49
Worcester	141	Calumet	47
Dallas	124	Cent. New York	46
W. No. Car.	116	Greenville	45
Raritan Valley	109	Sacramento	42
Hudson Valley	101	Manchester	39
Indianapolis	100	New Orleans	39
Kansas City	100	Fox Valley	38
Baltimore	98	Louisville	37
New Haven	96	Portland	36
Montreal	95	Twin City	36
Greensboro	89	Wilkes Barre	33
Binghamton	87	Nashville	31
Dayton	84	Madison	29
Trenton	71	Stamford	22
Atlanta	70	Non-Chapter	101
Providence	68	Non-Resident	81

Operations Research is the exacting and critical application of the scientific method by scientists and subject specialists to the study of the basic laws governing a given operation. Its purpose is to give administrators a basis for predicting quantitatively the most effective results of an operation under given sets of variable conditions, and thereby to provide a sound basis for decision making.

. . . Society for Advancement of Management, 1954

SYMBOLIC FIGURE GREETS MRS. GILBRETH

Sam Casey Takes Mother-of-twelve To His Heart

This unusual meeting, where a cardboard profile met the world's leading woman management consultant, occurred recently at the Kansas City airport. The woman is Mrs. Lillian M. Gilbreth, president of Gilbreth, Inc., co-developer of the science of motion study, real-life mother of the story "Cheaper by the Dozen", and an honorary member of SAM. The pleasant little fellow in cardboard is Sam Casey, the symbolic figure representing Society for Advancement of Management, Kansas City Chapter. Mrs. Gilbreth was in Kansas City on June 9 to address the members of the Society and the participants in the Kansas City Management Conference. The Kansas City Management Conference was co-sponsored by the K. C. Chapter of SAM and the School of Business of the University of Kansas City. It was a full-week executive-development program, first of its kind sponsored by a SAM Chapter.

Kansas City Chapter's SAM CASEY, and friend

A highlight of Indianapolis Chapter's Special Activities program during this year was an all-day conference at Butler University. The meeting brought out a series of discussions regarding time study techniques and results, and were climaxed by the showing of the SAM Time Study Rating film.

The Detroit Chapter's Sixth Annual Management Clinic focused around a program that offered a vigorous discussion of principles, methods and techniques concerned with preparation for tomorrow's problems. The six speakers on the program covered the various outstanding management problems of prime interest to SAM members present.

Speaker at the annual Public Interest luncheon of the Dallas Chapter of SAM was the 44-year-old president of the New York Stock Exchange, G. Keith Funston. In attendance were three hundred chapter members, leading business and industrial leaders of Dallas. Advocating wider ownership of stock as being advantageous for business as well as for the nation and the stockholders, Mr. Funston found his audience interested and receptive to his advocacies.

SAM Travel Tour was the title given to a recent event sponsored by the Cleveland Chapter, which took a group of management men on a tour of the big Timken Roller Bearing plant at Canton. Inspiration for production boosting ideas, the giant operation gave the SAM men a view of the world's largest electric furnace, the stunning sight of a pouring off of 100 tons of molten metal, the process of making seamless tubes and other steps in the manufacture of the company's precision products.

H. M. S. Ferguson of the Dominican Textile Company Limited was elected president of the Montreal Chapter of SAM at this Canadian chapter's annual 1954 meeting, which also revealed a substantial increase in membership and well-attended monthly meetings. A performance rating clinic of this chapter, held in Montreal, drew over a hundred members.

"Managers As Industrial Citizens" was the title of a speech given by Charles Prudell, Manager of Patent Law Department of Line Material Company before the Milwaukee Chapter recently. During the dinner portion of this meeting at which Mr. Prudell spoke SAM members honored Earl Koehler for his long and valued service to the Milwaukee Chapter.

Problems of organizing and operating a small business was the topic of a panel discussion sponsored by the Kansas City Chapter of SAM recently. Another interesting event of this group that brought over 60 members and guests to a recent dinner meeting was a talk by Robert O. Ferguson, of the Methods Engineering Council of Pittsburgh, on Linear Programming. Mr. Ferguson defined Lineal Programming as a mathematical method of making the most of a given situation or an approach to a problem as well as a set of mathematical rules for getting the most out of a situation.

Nine authorities in the fields of business administration and management were selected as instructors to aid SAM members of the Kansas City Chapter at their June seminar. The event was under the joint sponsorship of the University of Kansas City and the K. C. Society Chapter. The seminar was the first of a series planned by this group of management men.

END

New Management Writing . . .

ESSENTIALS OF INDUSTRIAL MANAGEMENT, *by Lawrence L. Bethel, Franklin S. Atwater, George H. E. Smith, and Harvey A. Stackman, Jr. McGraw-Hill, New York. $5.50.*

An over-all view of the industrial management scene, with strong emphasis on the importance of coordination and communication as the key to successful enterprise. The authors are concerned, they say, with the development of a management attitude and a management aptitude — certainly two of the good manager's critical attributes.

PROFITABLE SMALL PLANT MANAGEMENT, *by Malcolm H. Gotterer. Conover-Mast, New York*

A guidebook written expressly for management men in smaller and medium-sized plants, detailing a practical program for introducing scientific management into a plant of limited operations in a step-by-step manner which reduces cost to and risks to a minimum. Tackles most of the phases of plant management which are susceptible to improvement by means of modern methods. Small businessmen should welcome Mr. Gotterer's contribution in an area of growing interest.

AN INTRODUCTION TO THE STUDY OF INDUSTRIAL RELATIONS, *by J. Henry Richardson, George Allen & Unwind Ltd., London. 442 pages. $5.25.*

Industrial Relations is a subject of vital interest for all who are concerned with efficient production and higher standards of living. This book, based on wide experience in many countries, gives a comprehensive survey directing attention to day-to-day relations at the workplace, to collective bargaining between employers and trade unions, and to intervention by the State.

HISTORY OF AMERICAN INDUSTRIAL SCIENCE, *by Courtney R. Hall. Library Publishers, New York. $4.95.*

Professor Hall, of the Queens College History Department, a specialist in the history of technology for twenty-five years, has written the first book to give recognition to the inter-relationship between industrial management and scientific research, a mutuality of interest which has grown through the years with little focus of attention. The work utilizes not only the facts of industry's development, but new material contributed by sixty leading American corporations on the workings of research methods in their operation. Fully indexed.

LABOR ECONOMICS AND LABOR RELATIONS, *Second Edition, by Lloyd G. Reynolds, Prentice-Hall, New York. $8.65.*

Substantial additions have been made to this recognized authoritative text, taking account of further knowledge in the field which seeks to further an understanding of labor's genuine objectives. These include chapters on trade union philosophy and aims, labor in the political process, labor supply and the labor force, and labor mobility and market structure. All factual information has been brought up to date.

STUDIES IN METHODS: INDUSTRIAL CENSUSES AND RELATED ENQUIRIES. *United Nations, New York. In two volumes, each $2.50.*

An official publication of the UN which seeks to help governments in reviewing their industrial censuses, in order to implement the standardization and collation of international data.

HUMAN BEHAVIOR IN INDUSTRY, *by William W. Finlay, A. Q. Sartain, and Willis M. Tate. McGraw-Hill, New York. $4.00.*

What makes people act as they do on the job? That is the point of inquiry discussed by this work, authored by men concerned with industrial engineering, psychology and socialogy, respectively. A three-fold look at the dynamics of people at work, growing out of the popular sessions held for supervisors at Southern Methodist University's institute of Management. A sensible, humanized view.

THE AMERICAN CONCEPT OF LEADERSHIP, *by Colonel Sherman L. Kiser, U.S.A. Ret. Pageant Press, New York. $4.00.*

Always a fascinating subject for study, the qualities of the effective leader are given a thorough investigation by a man who has done his share of leading. An analysis not only of military command but of the whole area of human relations in regard to the direction of effort. Col. Kiser presents a discussion of the positive and the negative approaches to the leadership question.

BIBLIOGRAPHY OF OCCUPATIONAL HEALTH. *U. S. Department of Health, Education and Welfare. On request.*

A comprehensive listing of Public Health Service publications on occupational health subjects issued through 1953. Records the pioneering work in this field, and shows the shifting perspective of interest through the years.

INTERNATIONAL STANDARDS IN BASIC INDUSTRIAL STATISTICS. *United Nations, New York. $.30.*

An official report of the UN Economic and social Council's Statistical Commission. Recommendations to the nations of the world made by the Council to facilitate the collection and evaluation of international industrial data.

MANAGEMENT EDUCATION IN AMERICAN BUSINESS, *by Lyndall F. Urwick;* A SURVEY OF MANAGEMENT DEVELOPMENT, *by Joseph M. Trickett;* CASE STUDIES IN MANAGEMENT DEVELOPMENT, *by Robert G. Simpson;* THE EDUCATION OF EMPLOYEES: A STATUS REPORT, *by Douglas Williams and Stanley Peterfreund, with the assistance of Roscoe Edlund and Otto Lerbinger.*

These four booklets published by the American Management Association, at the request of The Fund for Adult Education, make an interesting addition to the literature of a growing genre: management writing. World-famous L. F. Urwick gives the general summary of the force American education has unquestionably been in preparing management, as well as the actual concern that American business has been to the U.S.'s finest educators. In surveying the development of management in the Study's Part II, Mr. Joseph M. Trickett dwells on the quantitative aspects of the sub-

ject, noting the characteristics of management development, as well as its effectiveness, and the implications that result. The case studies of Part III, ably organized by Robert G. Simpson, tell both the theory and practice of ten selected companies. Part IV, by Williams and Peterfreund deals with the present status of education of employees, and outlines proposals for further research. An interesting, thorough study of some of the basic management fundamentals.

THE MAN YOU HURT MAY BE YOURSELF. *Good Reading Rack Service, 76 Ninth Ave., New York.*

For the reading rack in any plant concerned with industrial safety, this booklet discusses good practice safetywise and gives some alarming statistics on industrial accidents. Light, but the subject matter carries impact.

A CLASSIFIED GUIDE TO THE FREDERICK WINSLOW TAYLOR COLLECTION, *arranged and compiled by Elizabeth Gardner Hayward. Stevens Institute of Technology, Hoboken, N.J. 45pgs.*

The management field has long needed to know where it can find the various works of Frederick Winslow Taylor. There comes to our hand a classified guide to the collection of this late, great management figure. This comprehensive and tremendously interesting brochure is a must for management men.

PROFIT SHARING PATTERNS, *by Phillip Knowlton. The Profit Sharing Research Foundation, Evanston, Illinois. 144 pages. $10.50.*

This comprehensive survey is the most extensive study in the field of profit sharing to be published in the last fifteen years, the last having been done by the Vandenberg-Herring Committee of the United States Senate in the Thirties.

The book covers the three types of profit-sharing plant: cash, deferred, and combination. It includes a discussion of a good cross section of businesses which have such plans today. These businesses range from very small to very large.

Any businessman or management leader whose business seeks information of the latest sort of this growing and popular trend in business, could well consult the volume.

LABOR MOBILITY AND ECONOMIC OPPORTUNITY, *Related Essays by E. Wight Bakke, Philip M. Hauser, Gladys L. Palmer, Charles A. Myers, Dale Yoder and Clark Kerr, with a preface by Paul Webbink. The Technology Press of Massachusetts Institute of Technology. 116 pgs. $3.50.*

Related short essays which make available for the first time the results of sustained research and thought by contemporary authorities working in the field of labor mobility. In exploring the realities of labor mobility and movement the economists are studying a factor which has important effects on the stability of every member of our society.

Pamphlets of Management Interest from the American Management Association

STEPPING UP OFFICE EFFICIENCY. *AMA Office Management Series, number 133.*

THE HUMAN SIDE OF THE OFFICE MANAGER'S JOB. *AMA Office Management Series, number 134.*

STREAMLINING OFFICE EQUIPMENT AND SERVICES. *AMA Office Management Series, number 135.*

ESSENTIALS OF EFFECTIVE PERSONNEL ADMINISTRATION. *AMA Personnel Series, number 154.*

MOTIVATION: THE CORE OF MANAGEMENT. *AMA Personnel Series, number 155.*

PRODUCTION GUIDES AND CONTROLS FOR THE MODERN EXECUTIVE. *AMA Manufacturing Series, number 211.*

GEARING UP FOR BETTER PRODUCTION. *AMA Manufacturing Series, number 212.*

BUILDING UP THE SUPERVISOR'S JOB. *AMA Manufacturing Series, number 213.*

New Products...

A portable arc welder which weighs a mere 65 pounds, operates on either 110 or 220 volts AC 60 cycles with a rated output of 200 amps, is manufactured by Brennen, Bucci, and Weber, Inc. Called the **Bren/Weld,** it incorporates a new ultra high efficiency transformer, whose recent development makes the portable arc welder possible. . . .

A new line of **rust-inhibiting paint,** which can be applied by brush or reduced with mineral spirits for spraying is brought out by the Glidden Company of Cleveland, Ohio. Called Nev-A-Rust, it dries in six to eight hours, may be recoated in twenty-four. . . .

The Clark Equipment Company of Battle Creek, Michigan, has designed a new field-tested **medium capacity Ross straddle carrier** called the Ross Carrier Series 81. Outstanding features include increased speed of operation, improved accessibility for maintenance and excellent drive visibility. The carrier has a 20,000 pound capacity. . . .

Conventional electric typewriters can be connected into **an office and industrial communication system** through the addition of Cable-Typist attachments. Developed by the American Automatic Typewriter Company, the system permits typists to work at a standard keyboard. The master machine, with a transmitter attachment, can be connected by telephone cables with an unlimited number of receiver machines. The communication network can be used between departments within a single building or between separate structures . . .

A newly developed **V-belt drive arrangement** for broadening the spindle speed range and versatility of its standard air-hydraulic drill units is being introduced by the Drill Unit Division of Rockwell Manufacturing Company of Pittsburgh. . . .

Baseboard radiation has been added to the American Air Filter Company's Herman Nelson line of heating and ventilating products. The idea is a **perimeter heating system,** maintaining uniform temperatures from floor to ceiling. The new units are available in eight-foot lengths. One model projects a mere one and one-half inches from the wall, and has been specially designed to eliminate the wall-streaking that previous radiation units sometimes caused. . . .

CIPM Reports . . .

Management at home and abroad is becoming more and more involved in and dependent upon its foreign operations programs. Because of expanding overseas investments and commitments and because of increased international business competition, modern managers are being forced today to broaden their vision and understanding of the international picture.

This is a comparatively new challenge to American managers. Until World War II, the domestic market was sufficiently large and unexploited to deter a great many American companies from engaging in foreign operations. Since the war, the United States Government has inherited gigantic overseas commitments, and the American business community has assumed much of the responsibility for expediting them. This has resulted in the reversal of a tradition that was insular as compared, for example, with that of business in pre-war Germany or Great Britain.

But many fundamental economic changes have occured in the world since the pre-war days—changes which challenge the resourcefulness of Old World managers equally as much as the ingenuity of the American novices. Thus, pre-war patterns of neo-mercantilism, international cartel arrangements, and other uneconomic systems of foreign operation have given way, perforce, to new circumstances of released nationalisms, competing "native" enterprises, and a growing emphasis on overseas technological development as a means of ensuring strength and solidarity among all members of the free world.

These changes require management which is truly internationalist and not just empire-minded. Being faced with increasing competition from abroad, modern management must rely more on greater human and technological efficiency of its own organization and operation than on the conveniences of monopoly, sellers' markets, etc.

Such efficiency requires the greatest possible utilization of all that is known about the theory and practice of modern management. Extended into foreign operations, it means that management must be willing and able to collaborate on an international scale with their foreign colleagues. It means that management will have to be sufficiently enlightened and flexible to cope with the diversities of foreign situations. The "profession" of management is already internationalized, and its "science" offers unlimited guide-posts to managers who, in their dealings abroad, seek maximum returns of profit and good-will.

Harold B. Maynard[1], speaking at a recent roundtable discussion at the Wallace Clark Center of international Management, New York University, suggested four things which management should do in order to realize the fullest possible benefits from its foreign ventures. They are:

1. *Management must try to overcome the language barriers which divide its international professional fraternity.* There is a need for preciseness and clarity of communications in the exchange of scientific management data, techniques, and other information. Syntactical and semantic barriers even divide the English-speaking world, although the glossaries of SAM and ASME have made a start toward correcting this situation. CIOS is currently engaged in the compilation of an international standardized glossary of 500 terms, but this is just the mere beginning of an attempt to bring order out of the current lingo jungle of management terminology.

2. *Management must learn how to modify its domestic practices when applying them overseas.* In doing this, management should be governed exclusively neither by the conditions of the home country nor by conditions abroad. Rather, it should be objective, and strive to make rational decisions which take into account the idiosyncrasies of foreign situations, as well as the employment of the most efficient and scientific management methods. As examples of this, Mr. Maynard pointed to such problems as applying abroad the low profit per unit, high volume technique as rigorously as it is applied in this country; discouraging the 5 per cent kick-backs between purchasing agents and sellers in societies where such practice is respectable and entrenched; or of promoting large-scale incentive plans in countries where additional earnings would not compensate the laborer for what he would lose in government social benefits.

3. *Management should put decision-making as close to the point of action as possible*—that is, it should practice true decentralization in its foreign operations just as it is tending to do increasingly in its domestic operations. Mr. Maynard believes that management in certain foreign countries have a decided competitive advantage over their American counterparts in this respect. The Brazilians, for example, often find it more practical to deal with German companies who authorize their representatives in Brazil to make discretionary on-the-spot decisions, than with American companies whose agents are not given such authority.

4. *Alert management must always be willing and able to learn from foreign, as well as domestic, sources.* The exchange of management know-how is a two-way street, and American management by no means has a monopoly on it all. Operations Research was first developed in Great Britain. The accelerated training technique, which was developed in Switzerland, augurs well, according to Mr. Maynard, to surpass TWI as an effective method of job training. There are many other examples. Furthermore, the opportunity for studying and testing management techniques in different social, economic, and political environments provides an ideal condition for the further systematizing of management science.

From time to time the international management landscape is illuminated by the light from a single significant event. It is always interesting to bring to the readership of ADVANCED MANAGEMENT a special feature connecting a member of the Society for Advancement of Management with the economic, political, or other area of the world picture upon which he has had influence. In a subsequent A. M. issue Mr. Gleason will report on a speech made at Geneva, Switzerland by the Society's own Mr. William McGrath, former President of SAM. 1947-1948.

[1] Founder and President of the Methods Engineering Council; Past President of SAM, CIPM, and the International Committee of Scientific Management (CIOS).

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